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ABSTRACT

Replacement of Australia's binary system, which separates the roles of colleges and universities, is discussed in this seminar report. In addition to seven seminar papers, information is provided on the Australian higher education system, including access, the curriculum, research, fiscal accountability, and program relevance and quality. In the keynote address, "The Organization of Higher Education in Australia: Options for the Future," Edwin Kerr reviews the development of binary policies over the past 25 years in England, Wales, Scotland, Northern Ireland, and Hong Kong. Options for Australia are discussed with some consideration to policies and principles in other educational systems. Paper titles and authors are as follows: "The Organization of Higher Education for the 21st Century--Needs To Be Met: An Employer's Perspective" (David Nolan); "The Binary System: A Student Perspective" (Janine Freeman); "Incubators of Anxiety? Staff Needs in Universities and Colleges" (Bill Walker); "The Binary System: A Commonwealth View" (Richard Johnson); "The Control of Higher Education: By Whom and for What Purpose?" (Donald W. Watts); and "The Binary System and Alternative Models: Two North American Models" (Bob H. T. Smith). (SW)

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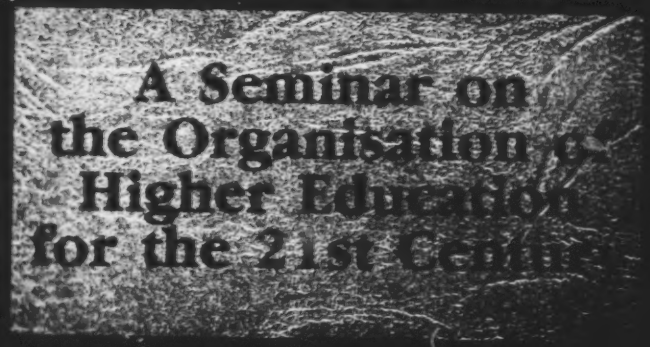

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W(H)ITHER BINARY?

A Seminar on
the Organization of Higher Education
for the
21st Century

17 - 18 March 1987

REPORT

Editors - Edwin Kerr, Bill Pullman and Royce Standish

Session Papers - Janine Freeman, Richard Johnson, Edwin Kerr, David Nolan, Bob Smith, Bill Walker and Donald Watts

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'There is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things, because the innovator has for enemies all those who have done well under the old conditions'

Machiavelli, 'The Prince'

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FOREWORD

Education is one of the major items of Government expenditure. In return for this outlay the public is justified in expecting a system which delivers education of quality and relevance to the needs of the individual and the community.

In a society experiencing rapid social and economic change it is important that the education system be also changing in a responsive and responsible manner. Nowhere is this more necessary than with higher education and the functions of our universities and colleges.

For twenty years or so we have had the binary system distinguishing the roles of colleges from those of universities. I believe that this distinction is now outmoded and not appropriate to the needs of Western Australia. Accordingly I have sought to create a debate about what should replace the binary arrangement and the seminar described in this publication has been an endeavour in this direction. I believe that this volume is a valuable addition to the literature and will be widely used in the discussions about the post-binary future which must now occur if education is to meet the challenge of the times.

I commend the efforts of all those who contributed to the success of the seminar - the authors of papers, the participants, the seminar leader Dr Edwin Kerr, chairpersons and reporters of the discussion groups, the British Council for helping to finance Dr Kerr's visit to Australia and the Western Australian Post Secondary Education Commission for organizing the event.

It is my hope that this timely publication will assist in discussions leading towards a post secondary education system appropriate to the needs of Australia for the next two decades.

Bob Pearce MLA
Minister for Education & Planning
Western Australia

ACKNOWLEDGEMENTS

On behalf of the Western Australian Post Secondary Education Commission we would wish to record appreciation to all those who assisted in the planning and running of the Seminar.

To the Minister for Education and Planning, Mr Bob Pearce MLA for his support and Opening Address.

To the authors of the papers presented:

Ms Janine Freeman
Professor Richard Johnson
Dr Edwin Kerr
Mr David Nolan (presented by Mr Stephen Kates)
Professor Bob Smith
Professor Bill Walker
Dr Donald Watts

To the persons who chaired the plenary sessions:

Dr Jim Gill
Mr Geoff Hawke
Dr Wally Howse
Dr Adrianne Kinnear

To the leaders and reporters of the discussion groups:

Mr Bruce Dormer
Dr Lynton Hayes
Mr Paul Hickey
Dr Warren Louden
Mr Mal Macpherson
Dr Wal Neal
Ms Pat Reynolds
Mr David Lloyd
Mr Laurie Money
Ms Jo Jennings
Ms Julie Harris
Mr Tony Edwards

To those members of the Commission's staff who assisted in coordinating, secretarial or other functions:

Ms Marlene Bevan
Ms Sue Cash
Ms Carmen Downes
Ms Wendy Ingram
Ms Marie Mack
Ms Dianne Martin
Ms Joanne Morris
Ms Gay Short
Dr Neil Stewart

To the British Council for its generous financial contribution to the cost of bringing Dr Edwin Kerr to Australia.

And finally to Dr Edwin Kerr who accepted a challenging assignment and whose experience and professionalism was so essential to the successful outcome.

It should be noted that the views expressed in the report are not necessarily those of the Commission.

Bill Pullman, CHAIRMAN
Royce Standish, ASSISTANT SECRETARY

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EXECUTIVE SUMMARY

The Issue

Since the mid 1960s there has been a three-fold increase in higher education enrolments, standards have been maintained and graduates have gained acceptance in the work-place. The higher education system has responded to severe financial restraint and major structural changes including, in recent years, the amalgamation of institutions. The major components of this system have been universities which are funded by means of block grants for teaching and research and colleges of advanced education which are funded for teaching only. The legislation and associated administrative procedures which incorporate these funding distinctions provide the basis for what is known as the binary system.

There is now increasing debate as to whether this binary system is the most appropriate one for the 1990s and the 21st century. Strong arguments have been put for increased government education funding for research in the advanced education sector. Others have argued for retention of the present research funding arrangements. Privately funded higher education institutions are being established, although Commonwealth policy does not support these developments. State Governments have also felt it necessary to take unilateral action to change the system without the support of Commonwealth authorities.

The proponents of a free-market approach argue for deregulation through the establishment of a unitary system with a minimum of Government controls and greater autonomy for institutions to develop as they see fit. Others claim the present binary structure should be retained with provision for incremental change in response to emerging needs, for example, expansion of Government research funding for the colleges of advanced education. The delicate balance of Australia's economy and the tight financial situation have served to highlight the debate in terms of Australia's requirements for renewed economic growth and equity issues related to education access.

Seminar

In order to prevent this vital debate on the binary system from becoming simply a matter of State-Commonwealth disputation, and ad hoc responses to short term issues, the Western Australian Post Secondary Education Commission sponsored a two-day seminar which was held in Perth, in March 1987. Ninety key persons from Government, industry and commerce, the community and education institutions met to consider the issues with the assistance of an international authority, Dr Edwin Kerr from the UK.

The degree of unanimity shown by participants was impressive and provided an agenda for action for the next stage of discussions and decision making. The principles underlying a system change would include the need for:

Planning

- clear statements of government objectives and funding policies;
- defined roles and functions for institutions and greater inter-institutional cooperation;

- political and financial realism; and

- closer links between economic policy development and education policy.

Flexibility

- diversity of educational opportunity; and

- some competition between institutions in relation to course development and research, as well as matching courses to economic and community needs.

Proposals

A flexible and dynamic system capable of serving Australia's needs into the next century would be one with a variety of institution types, including existing and hybrid forms, each funded according to an agreed mission. The rigidity of the binary arrangement would go and the new arrangement would have the following characteristics:

- revised roles for CAEs, universities and TAFE institutions within a post secondary education system;

- the separation of funding for teaching and scholarship from block grants for research, the latter to be made available to selected universities and CAEs - the funds released would be available for specified research and development purposes, and universities and CAEs would be free to bid for grants from this pool;

- a continuation of the current range of courses, especially at sub-degree level through CAEs and selected universities, with CAEs being permitted to provide doctoral work where appropriate;

- the funding of teaching and scholarship activities in CAEs and universities at identical levels in comparable fields of study; and

- the urgent and immediate enhancement of credit transfer arrangements and continuing education provision.

The new system would need to provide for a differentiation of institutions, development of areas of strength and for greater selectivity and accountability in funding arrangements.

Action

The important next stage is to establish under the aegis of State and Commonwealth Ministers for Education, a partnership of State, Commonwealth and institutional interests to work through an agenda for action. Specific proposals are required for the introduction of a new post secondary education system, which is more flexible than the present binary system and appropriate to the needs of Australia for the next twenty years.

As a first step this proposal is listed for discussion at the June 1987 meeting of Ministers forming the Australian Education Council. Informed debate should also be taken up by all those concerned about education and the role it must perform in contributing to Australia's future.

* * * * * * *

1. INTRODUCTION

Background to the Seminar

1.1 Since 1965, the Australian higher education system has comprised universities and colleges of advanced education (CAEs). The binary structure of the system is characterized by differential funding mechanisms and academic regulations. Universities have a research responsibility for which they receive Commonwealth funding, whereas CAEs have no formal research responsibilities, and consequently receive no Commonwealth monies for that purpose. Universities receive a higher recurrent grant per equivalent full time student than colleges of advanced education. Both types of institution are primarily concerned with providing undergraduate education, but the philosophy for the CAEs emphasizes programmes which are vocationally oriented and serve the community's social and economic needs.

1.2 During the last quarter century, Australia's binary system has been very successful in responding to the nation's higher education requirements. Although enrolment numbers trebled during this period, the increase has not been matched by a corresponding increase in Commonwealth funding. Nonetheless, and to its credit, the binary system has maintained high educational standards via a number of strategies designed to optimize the higher education dollar - and responded to the consolidation of small CAEs into single composite institutions.

1.3 That strains are now occurring in a higher education system established twenty-five years ago should evoke no surprise nor suggest that the binary structure was necessarily inappropriate at that time. In particular, the rapid promotion and development of CAEs to their present standing and maturity with the post secondary education system have lead to a questioning of the binary structure of higher education and created a need for its review. Reduction in real-level expenditure has focussed greater attention on accountability and in particular on the value obtained from the research component in block funding grants to universities. The question is raised as to whether some of this money might be more usefully spent in selected CAEs. The constitutional right of States to name and create institutions which do not fit within the present structure has been exercised without the concurrence of the Commonwealth Government. It is clear that a review of the system is now required.

1.4 Further developments which have blurred the binary distinction have been the establishment of institutes of higher education offering advanced education and TAFE awards and amalgamations leading to some universities providing advanced education programmes.

1.5 To date however there has been no systematic study and debate about the appropriate way to go forward into the 21st Century. While some proponents of a free-market approach argue for deregulation and other groups argue for incremental change to the present arrangement, the issue cannot and should not become simply a matter of State-Commonwealth disputation. Australia deserves a system of post secondary education which will meet national and State needs relevant to the 21st Century, as effectively and efficiently as possible within the funds available.

Structure of the Seminar

1.6 By sponsoring a Seminar to bring together informed and influential people whose views would be important in the formation of new policies the Western Australian Post Secondary Education Commission sought to contribute to the development of such a system. Ninety persons, including thirty from interstate (and whose names and affiliations are shown in Appendix 3), accepted an invitation to the Seminar in Perth. An international authority, Dr Edwin Kerr, formerly Chief Officer of the Council on National Academic Awards in the UK presented the key-note paper and acted as Seminar facilitator.

1.7 The emphasis at the Seminar was on small group discussion within a structured agenda, aided by six major papers on the binary system's response to the needs of students, staff and society and on post-binary solutions. The Seminar programme and papers are contained in Appendices 1 and 2. The Seminar was modelled on the seminars held in the Programme of Study into the Future of Higher Education sponsored by the Leverhulme Trust in the UK and published by the Society for Research into Higher Education in 1983.

The Spirit of the Seminar

1.8 Seminar discussions were characterized by:

- the recognition that change was urgently needed;
- a serious and responsible examination of needs, structures and options to meet needs;
- the search for changes which would not require substantial additional expenditure of public money; and
- a consensus as to the need for more effective and open partnerships between the Commonwealth bodies, the State bodies and the institutions.

1.9 The Seminar organizers were impressed with the degree to which delegates' views converged and the basis that they provided for further discussions towards a planned scheme for a new post secondary education system.

The Agenda for Action

1.10 The Seminar participants were convinced that change is now necessary if the post secondary education system, and the higher education system in particular, is to meet needs and priorities (including those for continuing education and training) in an efficient and effective manner, within likely resources and in ways which build upon institutions' strengths.

1.11 The consultative process to achieve an agreed agenda for action will need to continue through meetings of Ministers, educational administrators, institutional and community representatives. The agenda which emerged at the Seminar provides a broad summary of the major issues to be considered in developing future strategies for implementing proposed changes to the higher education system.

2. THE STRUCTURE OF HIGHER EDUCATION IN AUSTRALIA

The Need For Change

2.1 The major Seminar papers suggested a need for substantial change in the structure of the higher education system in Australia. Serious concerns were expressed (Nolan, p 29) about the ability of the present system to respond adequately to national economic development needs in circumstances of, at best, limited growth prospects for public funding in higher education. The constraints were seen to be further accentuated in the light of established funding priorities, including amelioration of existing deficiencies in resources, growth in undergraduate enrolment places, increased student allowance provisions et al (Johnson p 69).

2.2 Seminar discussions also highlighted fundamental questions concerning the continued relevance of the present binary system to contemporary needs and whether it has provided, or can provide, the appropriate framework for optimizing the use of existing higher education resources. Particular issues addressed included the overlap in the roles of universities and colleges (Freeman p 40), the inconsistencies between funding and function for universities and colleges (Freeman pp 41-42, Johnson pp 63-64 and Watts pp 76-77) and institution status (Johnson pp 62-63).

2.3 Since its introduction in the mid 1960s, the binary system has undergone a series of incremental changes in response to changing needs (Johnson pp 64-65). These changes at the margin have blurred the distinction between the role of universities and CAEs with respect to their ranges of course offerings and their involvement in research activities. More recently the 1986 CTEC Review of Efficiency and Effectiveness in Higher Education has provided a basis for further incremental change. While some compelling arguments may be mounted for such an approach

(Johnson p 69) other arguments have been presented for much more radical change and some have even suggested that it is all too little and too late in terms of continuing with the binary system at all, or persevering with it in its present form (Walker p 48). This latter view did not deny the considerable achievements made through the binary system of higher education, nor the arguments put at the Seminar to retain in any new or modified system, important features of the existing system, such as the breadth of undergraduate course offerings provided in colleges of advanced education, the vocational emphasis in such courses and the teaching/scholarship function in these institutions (Johnson pp 66-67 and Kerr p 118).

2.4 A strong view which emerged from the Seminar discussions was that the initiative for a review leading to change should come from the Commonwealth, and that it should be undertaken in close cooperation with the States as a matter of urgency. It was also suggested that future structural arrangements for post secondary education should be underpinned by a review of existing Commonwealth/State arrangements and the establishment of a new basis for and stronger commitment to improved Commonwealth, State and institution relationships. Although detailed consideration of this key issue was not undertaken at the Seminar, it appears to be a matter for early consideration by Commonwealth and State authorities.

While the need for substantial system change was widely accepted, there were differing views as to the exact nature of a more appropriate structure for the higher education system. Nonetheless, agreement was reached on a number of principles which should underpin any proposed new structure for the higher education system. The range of views on structures was reflected in four system models. These principles (para 2.5 pp 4-5) and models (paras 2.6-2.7, pp 5-6) are described below.

Planning Principles

2.5 The groups devoted much of their discussion to the principles which would need to underpin system change. In his keynote paper Kerr gives a useful overview of many of these principles (pp 138-141), including:

(a) the need to develop statements of role and function at the national and state level and detailed academic profiles at institution levels to provide a basis for an overall strategy, planning and monitoring of efficiency and effectiveness (Walker pp 48 and 57 and Smith p 93);

(b) the need for closer links between economic policy development and education policy (Watts p 81);

(c) the need to provide for diversity of higher educational opportunity (Johnson p 61);

(d) the need to retain the vocational characteristics of courses and research (Kerr p 119);

(e) the need to plan on the basis of political realism and no significant increase in public funding;

(f) the need for a clear statement of Government (Commonwealth and State) policy objectives, as well as funding guidelines and funding advice which provide a basis for ordered planning (Kerr p 142);

(g) the need to provide a competitive dimension in the higher education system with respect to matters such as institution development, system innovation, and the matching of economic and community needs to institution offerings (Nolan p 29); and

(h) the need for funding arrangements which do not affect the movement of students and staff between institutions nor cooperation between institutions (Kerr p 140).

Options for the Future

2.6 The Seminar papers and discussions detailed a number of models and their variants as a basis for restructuring the present system, including Technical and Further Education (TAFE) which could be classified into one of the following four categories. They also reflect the planning principles cited above and the characteristics in para 1.8, p 2:

(a) A system which would provide for Commonwealth initiated change leading to a variety of institution types, including existing and hybrid forms, each funded according to its mission (Walker p 55 and Kerr pp 142-145).

(b) A system based on the development of State systems, a renegotiation of Commonwealth and State tax sharing agreements and a minimal role for the Commonwealth with respect to higher education policy and funding (Watts p 73).

(c) A modified binary system, based on further incremental changes initiated by the Commonwealth but embracing 'entrepreneurial initiatives' taken by individual States (Walker p 55 and Kerr pp 145-146).

(d) A modified binary system, based on continuing evolutionary development of the existing structure initiated by the Commonwealth but with significant changes to provide for equal funding of comparable teaching and scholarships activities across all institutions, new arrangements for funding of research at selected institutions and significant development of appropriate doctoral programmes in CAEs (Kerr pp 148-151).

Preferred Option

2.7 The general ambience of discussions was one in which the need for urgent change was recognized. Thus while it was not

possible to consider each of the above four options in complete detail, there was a general unanimity of view in favour of moving to option (d) quickly, followed in due course by the establishment of preferred option (a).

2.8 Some strong views were expressed about the need for change with respect to a number of key elements considered in each of the options. These included:

(a) revised roles for CAEs, universities and TAFE institutions within a post secondary education system;

(b) the separation of funding for teaching and scholarship from block grants for research which would be made available to selected universities and CAEs. The funds so released would be available for specified research and development purposes, and universities and CAEs would be free to bid for grants from this pool;

(c) a continuation of the current range of courses, especially at sub-degree level through CAEs and selected universities, with CAEs being permitted to provide doctoral work where appropriate;

(d) the funding of teaching and scholarship activities in CAEs and universities at identical levels in comparable fields of study; and

(e) the urgent and immediate enhancement of credit transfer arrangements and continuing education provision.

3. HIGHER EDUCATION SYSTEM CHARACTERISTICS

System Focus

3.1 During their consideration of the essential characteristics of a responsive higher education system, participants focused on the system as a whole, rather than on its constituent institutions. In so doing, they were relying on the potential of the various higher education sub-systems to manifest differentially those system characteristics by capitalising on their own particular areas of strength.

3.2 Participants believed that the system changes that required to put into practice the proposed characteristics would have to be achieved without significant additional public funds. Their successful implementation would also be dependent on the extent to which the institutions were adaptive to and supportive of them - put simply, a higher education system incorporating the characteristics identified at the Seminar would need to be flexible in order to remain responsive to the needs of society.

3.3 The following six characteristics were identified by Seminar participants as key elements of a responsive higher education system.

Access

3.4 The Australian higher education system exhibits a number of positive characteristics in respect to access, some of which at least have been furthered by the binary arrangement. Martin argued for CAEs to adopt more flexible and less traditional entry conditions than universities, to espouse the importance of teaching and to cater for the needs of part-time and mature age students. In the event, the CAEs have provided cost-effective expansion while maintaining standards and now have a larger student body than universities, drawn from a broad socio-economic background. The existence of many programmes in the external mode has improved access to those residing at a distance from metropolitan institutions and to those such as home-makers and shift workers who cannot or do not wish to attend campus.

3.5 The Seminar was reminded several times of international comparisons showing Australia's relatively low rate of participation in higher education and there was general agreement that this should be improved. Among the reasons cited were those of a social nature, based on the fact that retention rates to Year 12 were now significantly higher than just a few years ago and there was an increased community expectation that post secondary education opportunities would be available to 'all those who can benefit from them and who wish to do so' (UK Report on the Development of Higher Education into the 1990s - Kerr p 139), notwithstanding a substantial unmet demand.

3.6 Johnson (p 66) quoted Commonwealth Government policy asking CTEC 'to give highest priority to proposals to increase participation of young people' and posed the question to delegates as to whether they agreed with this priority in preference to 'redressing deficiencies of buildings and equipment or increasing research funding'. There was no dissent from this general strategy, although some speakers indicated that improved access and participation provision might be most effective if the enhanced opportunities for participation were in areas of economic and social relevance - that is, in technology related areas.

3.7 Nolan (p 29) linked the drive for increased participation with a need to make the system more efficient, in his case through the introduction of fees within a general objective '... means must be found to ensure that all those with ability are able to develop their natural aptitudes and talents...'. Whatever the role of fees or the funding strategy adopted, the objective reflected the general view of participants regarding the importance of improving access for all categories of students and of ensuring that system structure changes should assist rather than resist this development.

Courses - Nature and Range to be Provided

3.8 Two major features of the structure outlined in paras 2.6-2.8, pp 5-6 are the separation for funding purposes of teaching and scholarship from research activity and the careful delineation of the role of each institution in respect of approved teaching and research activities. How could these changes help in the effective and efficient delivery of courses of study appropriate to the needs of the individual, community and industry?

3.9 There were clear and consistent expressions of opinion that the major activity of all educational institutions, whether universities or CAEs, was undergraduate teaching, that it should be done well and that on graduation students should have a mix of technical skills, development of 'the power of the mind', and attitudes of curiosity and adaptability such that graduates were employable.

3.10 Again the economic situation and the role of higher education in providing highly skilled men and women was an issue well to the fore. Nolan (p 30) differentiated the responsibility of employers in providing job specific skills from those of institutions in preparing well-rounded graduates with technical skills relevant to the needs of industry and who have an awareness of the working environment. He promoted the sandwich course arrangement strongly, as have others before but without much success. Why is Australian academe uninterested?

3.11 Several speakers and discussions returned to the notion of an education-industry partnership, rather than industry simply being a client without contributing to course development or quality assessment procedures. Both Kerr (p 136) and Smith (p 94) described systems in which teaching and its associated essential activity of scholarship could be equally regarded as highly as research and funded accordingly, irrespective of the name of the institution. Such a development would, it was argued by some, enhance the role of the teacher vis-a-vis researcher and lead to better public understanding. A challenge not taken up however concerned the provision of incentives, including promotion for excellence in teaching.

3.12 A laissez-faire situation in which institutions decided the range and levels, sub-degree to doctorate, of courses to be offered was proposed but generally rejected in favour of coordination aimed at encouraging institutions to concentrate on their strengths. Under a system approach based on institution strengths:

- some universities could offer sub-degree programmes;
- some CAEs could offer doctoral programmes in specific areas;

- the tendency to eschew 'lower level' work, so-called academic drift, could be avoided; and

- linkages between institutions could be improved, for example, if credit transfer arrangements for students were made more explicit.

3.13 An initiative by universities to adopt course accreditation procedures, was cited as a development which would enhance industry involvement with consequent statements on relevance and quality. This closer liaison would help institutions, employers and professional societies fulfil an urgent need for updating of skills by means of short courses of continuing education.

Research - Need and Provision

3.14 An early clarification, provided by Kerr, of the distinction between scholarship and research facilitated constructive discussion on this topic. His assertion that all staff in universities and CAEs must be engaged in scholarship was backed by Johnson (p 67) who defined scholarship as .... 'strenuously staying up with the cutting edge of the subject (even if not getting out in front of the edge) and rigorously applying standards of evidence and judgement'. Research, for which funding support is given, is something different.

3.15 Economic restraint, the increasing cost of scientific research and the strenuous efforts by CAEs to be funded for research combine to rule out a simple re-drawing of the binary line to include a few more institutions to be funded at university level. Quality, and hence selectivity, was preferred by the vast majority to either preserving the status quo or spreading resources even more thinly. Kerr (p 136) and Smith (p 95) both provided examples of overseas experience where, by a peer review process, departments or units of institutions, rather than whole institutions are provided with funds for research with associated higher degree provision.

3.16 Some contributors spoke in terms of 'applied research' and of the facilities and staff in some CAEs which were available to undertake this work. Others believed that the solution lay in targeted research aimed at meeting national or state needs and for which some universities and some CAEs would be funded, perhaps on an industry matching grant basis, would lead to the more effective application of research findings. The use of key centres for teaching and research was mentioned in this regard.

3.17 Collaborative education-industry research schemes, new types of PhD for professional leaders rather than research academics, and competitive bidding for research funding were seen as ways of achieving economic advantage for Australia. It was recognized that there would be difficulties in moving to a new funding mechanism, particularly for universities whose staffing policies included tenure for the majority of staff, and that efforts to reach threshold conditions for external funding of some departments have to be paid for by

an impost on all departments. The promotion of research of a general nature - 'adding to the store of knowledge' would be achieved by some universities continuing to receive a block grant for this purpose but at a level much less than that currently applying. Many felt that the imperatives for change in this area went far beyond the proposals in the CTEC Review of Efficiency and Effectiveness.

Promotion and Coordination Functions - Commonwealth, State and Institution

3.18 In responding to the question of how these functions might be discharged, it is important to confirm first of all that they should indeed be performed. Discussants had little doubt that a deregulated approach was not in Australia's best interests, it offered no guarantee that national and State needs would be met or that academic drift would be resisted. While the present shared legislative financial responsibilities prevailed there was no alternative to an effective partnership involving Commonwealth, States and institutions with defined roles for each.

3.19 Federal systems overseas were described but had little to offer, other than to reaffirm the need for a coordination function given the separation of legislative responsibility for higher education institutions from funding responsibilities in Australia. Walker (p 50) asserted that an efficient and effective system was related to the job satisfaction of staff and that this depended on the climate for the development and implementation of policy which existed at the system and institutional level. Watts (p 75) while rejecting Commonwealth dominance, accepted that there were issues for which the Commonwealth rather than the State had responsibility.

3.20 The general consensus in favour of a partnership between the Commonwealth and the States would require a careful definition of the role of the Commonwealth in such areas as the allocation of funds, special initiatives of national significance and expression of national goals. In regard to the latter, Walker (p 57) lamented 'Meanwhile the stubborn and intractable fact remains that we have no national mission, no clear alternative futures, no strategic plan for higher education. We hobble along pretending that the sixties are forever.' States would have roles for the distribution of resources and the approval of detailed statements of academic profiles of institutions, all of which would be treated on their merits. Institutions in turn would identify their programmes, clientele and the outcomes to be achieved. Such an arrangement would embody 'the notions of comparability, adequacy, difference and uniqueness' as described by Smith (p 96) and moreover lodge responsibility for actions taken much more clearly with State Ministers, statutory agencies and the governing bodies of institutions.

3.21 Given the collegial nature of institutions within the system, adequate mechanisms for consultation with affected and interested parties would need to be ensured. The views of employer and community groups would be particularly pertinent and the mechanisms would require these groups to accept the sharing of responsibility of shaping the system to meet future uncertain needs. The need for urgency in opening discussions on these partnership matters was emphasized by many participants and generally accepted.

Accountability - Funds Expended, Quality and Relevance of Programmes

3.22 The fact that institutions are established under Acts of State Parliament and are required to submit annual reports including a statement by auditors for tabling in Parliament ensures that the money expended is adequately accounted for. Such an arrangement does little more than show that misappropriation does not occur. It adds nothing to our knowledge of the effectiveness of the expenditure and the benefit obtained. Nolan averred, (p 28) 'When the education dollar that has been spent brings with it insufficient return then there is too much being spent on education'.

3.23 Senates and Councils are legally accountable, not only for expenditure, but also for the benefits provided. Much of the debate at the Seminar focussed on how they obtain advice to assist them in the discharge of their responsibilities.

3.24 Discussants noted that while research quality was in part assessed through peer review and publication, little was done to assess and ensure high quality teaching. Proposals were made to extend course assessment procedures currently found in CAEs to include all institutions, or alternatively, to have regular institution-wide appraisal by external experts. Such procedures would include commentary on the relevance of course content if representatives of practitioners and employers were included in assessment panels and would augment the assessments by professional societies for the purposes of admitting graduates as members. In a wider context, such 'open-door' practices could do much to project the image of responsible and responsive institutions and at the same time strengthen the role of Senates and Councils in the preservation of institutional autonomy and academic freedom.

3.25 The maintenance of some competition between institutions and the avoidance of unnecessary duplication rests with State and Commonwealth agencies and provides an avenue for the accountability to Ministers and Parliaments for the health and vigour of higher education systems. In the structure proposed the Commonwealth would establish the framework for funds to flow to States with coordinating bodies setting priorities and being accountable, with institutions in turn being accountable to students and the community. Market forces and collegial arrangements would help provide a form of self-regulation.

Higher Education and TAFE Linkages

3.26 This topic had not been explicitly identified in the planning of the Seminar on the binary system. However some speakers and all discussion groups raised the matter of linkages. In rejecting the model involving the shifting of the binary line to include a few more institutions in the university sector, several discussants noted the increased gap between higher education and TAFE which would result, as would also occur in a unitary system.

3.27 The preferred option (paras 2.6-2.8 pp 5-6) is intended to demonstrate clearly to the community and to students that TAFE is an integral part of post secondary education and would be included in system planning. In some States the establishment of Institutes of Tertiary Education covering two and even three sectors of post secondary education has blurred the distinctions and made the need for effective cross-sectoral planning even more imperative. Solutions need to be found to a achieve this in instances where TAFE is delivered through State Education Departments without the same degree of institutional autonomy as universities and CAEs.

3.28 The rapid growth in recent years in Year 12 retention rates indicates the start of a new era for TAFE and examples of overseas experience were quoted in support of this. Smith (p 92) cited a requirement of community colleges in British Columbia as being to facilitate credit transfer to universities. The potential for credit transfer arrangements can be judged from the Carnegie Council study of 1981 (Smith p 93) which showed that of the 3 200 institutions in the US, 100 were research universities, 100 doctoral universities, 600 comprehensive institutions, 600 liberal arts colleges, and 1 200 two-year colleges with 600 institutions not falling easily into one of these categories.

3.29 While some discussants saw credit transfer as diminishing the status of autonomous institutions, the majority wished to see specific statements on credit transfer by all institutions. Some favoured a system whereby first-year university level studies were offered in TAFE with agreed transfer arrangements. Funding by function and within agreed institutional profile statements would assist the promotion of credit transfer especially in geographically remote areas where it would be wasteful to establish higher education and TAFE programmes in the same field of study each with marginal enrolments.

3.30 In his summary Kerr (p 152) argued for an orderly modification of the present system and concluded 'The above (proposals) would result in a post secondary education system which preserves all the best of current practice and a controlled development which would enable some of the CAEs and TAFE institutions to take on additional activities where they could perform these in an efficient and effective manner and at a high quality.'

4. PRIORITIES

4.1 Some of the amendments to the binary system which have been proposed earlier are substantial and will need considerable measures of time, discussion and goodwill to bring about. Fortunately some aspects, for example changes to staffing conditions are also the subject of other initiatives and may therefore be resolved as part of a package.

4.2 However the arguments for early change to the present system appear irrefutable and the issue is not if, but rather when and how the changes are to be made. Some changes such as allowing CTEC funds to be used in selected CAEs for research and doctoral work could be achieved readily in the next triennium, would involve modest amounts of money and need not cause widespread major shifts in the existing activities of institutions.

4.3 Other changes would need a longer time frame than the 1988-90 Triennium to bring into place. For these and the implementation of structural changes, Seminar participants urged that a discussion process involving Commonwealth and State agencies and institutions be established promptly under the aegis of Commonwealth and State Ministers to work through the proposed agenda for action.

4.4 Participants at the Seminar believed that priorities for action should respond to the widespread recognition of the need for change (para 2.1, p 2), planning principles (para 2.5, pp 4-5) and the preferred option for structuring the higher education systems paras 2.6-2.8 pp 5-6).

5. PERSONAL IMPRESSIONS: Dr Edwin Kerr

5.1 When I received the invitation to play a leading role in the seminar I considered carefully whether I should accept it. I pondered whether it would be counter productive to have such a high profile for it might be thought that I was suggesting UK practices were the solution to Australian problems. I accepted the invitation in the three fold belief that:

(a) my experience, including that derived from two previous professional visits to Australia would give a good basis for the task;

(b) there was a considerable similarity in the educational and economic circumstances in the two countries, though there were important differences which had to be considered (for example, the federal situation and the geographical scale and population distribution in Australia); and

(c) I could make it clear I was presenting a commentary on recent developments in the UK in which I had been personally involved, focussing some of the key issues from this commentary as they related to the Australian scene, and hoping these perspectives would be of assistance to those attending the seminar.

5.2 A number of very clear general impressions of the Seminar remain with me, prominent amongst them being:

(a) the warm and generous way in which the Seminar participants welcomed my contributions and reacted to them;

(b) their manifest commitment to overcoming the challenges and grasping the opportunities facing post secondary education; and

(c) their desire to prepare an outline Agenda for Action which, if followed systematically by the relevant bodies, would lead to a post secondary education system which was better fitted to serve Australia in the days ahead.

5.3 Likewise I have a number of more specific and particular impressions of the Seminar which are briefly set out in the following five paras.

5.4 Participants at the Seminar agreed that the achievements of the binary system over the past 25 years were very real and important, but that a significant re-examination of the whole post secondary education system was now imperative. Changes to the system going beyond those adumbrated in the 1986 CTEC Report 'Review of Efficiency and Effectiveness in Higher Education' were now essential. In a revised post secondary education system the best of current practices and diversities should be retained but some of the rigidities in the current roles of the sectors should be relaxed so that more of their potential may be realized.

5.5 Criticisms and opinions were forcefully expressed during the Seminar on many aspects of the relationships between Commonwealth and State coordinating bodies for post secondary education and on their various roles. Nevertheless there was a very strong consensus in the Seminar that the CTEC in partnership with the State agencies and the Institutions should quickly take the initiative. The Agenda for Action should be taken up to ensure that detailed and fully considered proposals for a revised post secondary education system are prepared for consideration and decision by the relevant bodies.

5.6 The Seminar accepted that it was very likely that no substantial additional resources will be made available for post secondary education from public funds for as far as one can see into the future. Based on this, in a spirit of realism and not of defeatism, the Seminar participants then looked for ways of using the available funds in an even more efficient and effective fashion in the future.

5.7 The Seminar participants accepted that <u>all</u> lecturing staff in the post secondary education system should be funded for teaching and scholarship. This would enable them to keep up to date with developments and to continue to teach with authority. However only some teachers would be funded by the CTEC for research. A concomitant accepted by the Seminar participants was that at the system level, irrespective of sector, there should be 'equal funding for teaching and

scholarship associated with equal work'. Thus, for example, in determining grants to a university and a college of advanced education for the study of engineering at degree level the unit costs per student used in the calculations should be the same.

5.8 The Seminar participants were interested in the changes in the funding of research in the UK and on my speculations on how these changes might go even further in the future. There was agreement that a reconsideration was needed of the distribution of research monies by the CTEC. Less of the monies should be distributed in general grants to institutions and greater selectivity should be used in this distribution. More of the monies should be distributed as a result of competitive bidding for targetted purposes. The CAEs would be eligible to participate in these competitions.

5.9 Following the Seminar I had discussions in Canberra and Eastern States and also participated in a number of seminars and conferences. As the Perth Seminar was discussed I found there was much support for its main conclusions. In particular there was general support for the points set out in paras 5.4-5.8, pp 14-15 above. The previous para (para 5.8) was seen as being more controversial, for if implemented, it could result in some universities suffering major reductions in grants from the CTEC for research purposes. If this did occur, careful attention would have to be given to the phasing in of the reductions.

5.10 In these discussions several people suggested that some of the State agencies had been, were, or might be subject to revisions in their roles and staffing and that then they might no longer be strong enough to work with CTEC in the ways outlined above. This danger should be noted and where it is real steps should be taken to avoid it.

A Note on Continuing Education and Training

5.11 In my paper I made some observations about continuing education and training both for those who wanted and needed education in middle life and for the continuing professional development of those who are already qualified. I was certainly not implying that Australian higher education institutions were not providing courses appropriate for continuing education and training, but rather that the literature did not seem to indicate that this was widely recognized by State and Commonwealth bodies as one of the major and essential purposes of higher education institutions.

5.12 Most people in the Seminar and in other discussions agreed with these observations and felt that there were factors in the present funding arrangements which inhibited institutions from recognizing continuing education and training as one of their central objectives. I feel that there is a need for the State and Commonwealth bodies to consider this matter and to determine if there are steps which they should take to foster the role of institutions in this area.

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W(H)ITHER BINARY? SEMINAR

APPENDIX 1: SEMINAR PROGRAMME

TUESDAY

8.30am	Registration
9.00am	Introduction - Dr Bill Pullman, Chairman of the Western Australian Post Secondary Education Commission
	Opening of the Seminar - Mr Bob Pearce, Minister for Education in Western Australia
9.30am	Session One: Whose Needs?
	. Employers? - Mr Stephen Kates - Senior Research Officer, Confederation of Australian Industry
	. Students? - Ms Janine Freeman, Vice-President, WA Post Secondary Students Organization
	. Staff? - Professor Bill Walker - Principal and Chief Executive Officer, Administrative Staff College, Melbourne
	Plenary presentation of major themes from pre-circulated papers. Brief period for questions at the conclusion of the presentations
	Session Chairman: Dr Jim Gill, Director (Corporate Services) Westrail and Commissioner, WA Post Secondary Education Commission
10.25am	Announcement of arrangements for Group Discussions
10.30am	Morning tea - ground floor, Orchard Conference Centre
10.50am	Session Two: Whether Binary? Does the Binary System provide for needs to be met?
	Group discussion on needs to be met
12.00 noon	Session Three: Appraisal of Needs, Dr Edwin Kerr, Former Chief Officer, Council for National Academic Awards (UK)
	Session Chairman: Dr Adrianne Kinnear, Senior Lecturer(Science), WA College of Advanced Education and Commissioner, WA Post Secondary Education Commission

12.45pm — Lunch - Atrium, Orchard Hotel

1.45pm — Session Four: Whether Binary ? Does the Binary System provide for needs to be met? (Continuation of discussion from Session Two)

Group discussion on appraisal of needs

3.00pm — Afternoon tea - ground floor, Orchard Conference Centre

3.20pm — Session Five: Options for Change

- Professor Richard Johnson, Special Commissioner, Commonwealth Tertiary Education Commission
- Dr Donald W Watts, Vice-Chancellor, Curtin University of Technology
- Professor Robert Smith, Vice-Chancellor, The University of Western Australia

Plenary presentation of major themes from pre-circulated papers. Brief period for questions at the conclusion of the presentations

Session Chairman: Dr Wally Howse, Secretary, WA Post Secondary Education Commission

4.45pm — Session Six: Summary of Day One

Plenary session

Session Chairman: Dr Edwin Kerr

7.15pm (for 7.45pm) — Seminar dinner - Harvest Room, Orchard Hotel

Dinner address - America's Cup Reflections - Dr Stan Reid, Chairman, Royal Perth Yacht Club America's Cup Committee

WEDNESDAY

9.00am	Introduction - Program for Day Two, Dr Bill Pullman
9.05am	Session One: Options for Change
	Group discussion
10.15am	Morning tea - ground floor, Orchard Conference Centre
10.40am	Session Two: The Organization of Higher Education in Australia - Options for the Future
	Keynote Address, Dr Edwin Kerr
	Brief period for questions at the conclusion of the presentation.
	Session Chairman: Mr Geoff Hawke, Principal, Mt Lawley Technical College and Commissioner, WA Post Secondary Education Commission
11.40am	Session Three: Selecting Options for the Future
	Group discussion
12.30pm	Lunch - Atrium, Orchard Hotel
1.45pm	Session Four: Priorities for Change
	Group discussion, drafting of group discussion outcomes
3.00pm	Afternoon tea - ground floor, Orchard Conference Centre
3.30pm	Session Five: Seachange for Binary? - The Agenda of Needs, Options and Priorities
	Plenary discussion including group summaries
	Session Chairman: Dr Edwin Kerr
4.40pm	Closure of the Seminar, Dr Bill Pullman

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W(H)ITHER BINARY? SEMINAR

APPENDIX 2: SEMINAR PAPERS

APPENDICES

Appendix 1 - Seminar Programme 17-19

Appendix 2 - Seminar Papers 23-157

1. . The Organization of Higher Education for the 21st Century. Needs to be Met: An Employer's Perspective 23-35
David Nolan, Director, Confederation of Australian Industry (Presented by Mr Stephen Kates, Senior Research Officer, Confederation of Australian Industry)

2. . The Binary System: A Student Perspective. 36-44
Ms Janine Freeman, Vice-President, WA Post Secondary Students' Organization

3. . Incubators of Anxiety? Staff Needs in Universities and Colleges 45-58
Professor Bill Walker, Principal and Chief Executive Officer, Administrative Staff College, Melbourne

4. . The Binary System: A Commonwealth View 59-70
Professor Richard Johnson, Special Commissioner, Commonwealth Tertiary Education Commission

5. . The Control of Higher Education - By Whom and For What Purpose? 71-84
Dr Donald W Watts, Vice-Chancellor, The University of Western Australia

6. . The Binary System and Alternative Models: 85-99
Two North American Models
Professor Bob H T Smith, Vice Chancellor, The University of Western Australia

7. **Keynote Address:**

. The Organization of Higher Education in Australia: Options for the Future 101-157
Dr Edwin Kerr, former Chief Officer of the Council for National Academic Awards in the United Kingdom

W(H)ITHER BINARY?

A Seminar on the Organization of Higher Education
in Australia for the 21st Century

SEMINAR PAPER

Session One: Tuesday 17 March 9.30 - 10.25 am

THE ORGANIZATION OF HIGHER EDUCATION FOR THE 21ST CENTURY

NEEDS TO BE MET: AN EMPLOYERS' PERSPECTIVE

Mr David Nolan
Director, Confederation of Australian Industry

THE ORGANIZATION OF HIGHER EDUCATION FOR THE 21ST CENTURY

NEEDS TO BE MET: AN EMPLOYERS' PERSPECTIVE

INTRODUCTION

The problems now confronting the Australian economy are basic. They go to both the structure of our industry and to attitudes which now seem deeply embedded within our society.

In terms of industry structure, Australia has relied for too many decades upon its extractive, processing and farming industries to provide the basis for economic growth. During the 1970's, and particularly the late 1970's, when many of our trade competitors were changing their technology and adapting to new manufacturing processes and products to meet the markets of the 1980's and beyond, Australian industry did not keep pace with these international developments.

The world wide demand for our mineral and farming resources has now vastly diminished. Our manufacturing industries are behind our major competitors both in the product lines manufactured and the technologies utilized.

On the attitudinal side, the Australian community continues to demand a lifestyle which is not sustainable on the basis of current economic performance. This demand has caused Governments both Federal and State to rely more and more upon debt financing to maintain expenditure levels in an endeavour to meet the aspirations of their respective electorates. There has until recent times been insufficient resolve on the part of Governments to actively seek to dampen expectations and to create a recognition that many benefits must be forgone if the major problems confronting this economy are to be reversed.

There is also a significant attitudinal problem within Australian industry in terms of the degree of acceptance of the need for individuals and enterprises to significantly increase their productivity. A major turnaround in our economy will not be achieved unless there is a new 'productivity ethic' generated within Australian industry.

Whilst it is not possible to project with any accuracy the priorities that will determine the nature of Australian society and the Australian economy in the first decade of the next century, there are certain factors or trends that we consider to be important. These are evident at the present time and we believe they will increase in importance throughout the 1990's.

We therefore consider that decisions made on educational priorities should be targeted toward meeting the needs of our society in the 1990's and preparing our young people for the changes that will follow early in the next century. The important factors or trends which in our view are now evident and are likely to continue include:

- the world will 'continue to grow smaller' in that it will tend more and more towards an international community with travel and communication links vastly expanded and with international trade focussing more on an individual country's inherent advantages: less efficient activities in any one economy are likely to move to other countries that can better perform those functions;

- the relative level of economic importance attaching to our rural, extractive and manufacturing industries will at the very least remain at current levels, if not decline;

- employment opportunities in those industries, which between them have absorbed a large proportion of the Australian unskilled or lesser educated workforce over the post war years, will continue to decline;

- Australia will nonetheless remain a highly regarded country within the industrialized world because of its sparse population, its quality of life and its political stability;

- international investors and businesses will therefore continue to seek out large scale investment opportunities in Australia;

- service industries including tourism and retail, and hightech manufacturing industries will play a major role in the provision of job opportunities in future decades; and

- there will be considerable scope for the application of entrepreneurial skills, and potential growth in medium and small enterprises is likely to play a major part in the provision of job opportunities in future decades.

In this context it is apparent that industry must as always play the lead role in generating future economic growth, and in striving to improve upon current levels of employment. The Australian education system, and particularly our tertiary system, will itself play a critical role in determining the extent to which these endeavours eventually succeed.

Australian industry will only be competitive internationally to the extent that our education system is also competitive internationally. Without a highly educated and skilled workforce Australian industry will be unable to meet the challenges which confront it.

Australian participation rates in tertiary studies, the maths and sciences included, are certainly low by international standards and CAI sees this as part of a continuing problem for this community.

This is of considerable importance to Australia because of the need to ensure that there is an expertise available within this community to evaluate, adapt and improve technologies that are being produced throughout the industrialized world.

Without a body of expertise trained to carry out these functions, Australian industry will be unable to keep itself at the forefront of industrial processes that are being developed elsewhere.

Moreover, there will not be a flow of new processes being developed here that will allow Australia to compete against other developed economies.

The essential importance of the notion of comparative advantage, even at its most basic, is to enable an economy to exploit the resource base it already has. If Australia can do no more than buy overseas technologies then it will not be exploiting its own resource base, but will instead be adopting the results of the resource bases of other, often quite different, economies.

This may be acceptable as a second best approach, and may even turn out to be the most efficient direction to follow given the comparative size of this economy, but it is one that we will be forced to adopt if we do not at least attempt to maintain a comparability of skills with producers overseas.

The net result of our falling farther behind in the technology stakes is to find ourselves falling farther behind in being able to grasp new markets in the new, high technology industries that are the wave of the future.

It will compel us to remain a resource-based economy that must import from others the leading edge technologies, and then face the problem of finding the expertise to utilize these technologies to their full capacity.

This will have a secondary set of effects in that individuals that we do have with the appropriate skills will recognize that this is not the place to be if they are to participate in the front line of developments that are occurring elsewhere. This will produce an intensified brain drain as our better trained, highly skilled, and more ambitious people choose to emigrate.

One of the fundamental problems faced by this community is the low repute for scholarship and learning that seems to be endemic within the school system.

Throughout the majority of the industrialized world, the highest aspiration of the bulk of the school population is to receive a tertiary education. This is seen as the most useful approach to getting on in the world.

The low participation rates in Australia are likely to be a result of the attitudes that are prevalent throughout the school system in terms of the value of a continuing education.

<u>WHAT ARE THE CHARACTERISTICS REQUIRED IN EDUCATION PROGRAMMES, WHAT EMPHASIS SHOULD THERE BE ON THEORETICAL VS PRACTICAL ACTIVITIES, AND WHAT OPPORTUNITIES FOR EXPOSURE TO THE 'REAL' WORLD</u> ?

It may be taken as a general rule that the skill base is inadequate to the needs of the market. There are a number of reasons for this.

First, the diversity of skills available are the result of the historical pattern of industrial development which is always in the process of becoming obsolescent.

The result of this is that there are always new processes and technologies being developed that do not have sufficient numbers of trained individuals that can use these technologies to their fullest extent.

There is thus an on-going need to develop the skill base that allows this community to use these technologies to their fullest extent. The skill base available is always in a position of having to catch up to the technologies available.

Secondly, there is in general a continuous mismatch of skills needed and skills available. No amount of prior planning can overcome the fact that the training that individuals choose to take and the needs of industry will not be entirely coordinated.

The result is that for many specialized skills there will be too few trained people and for others there will be too many.

Thirdly, there is a perception that can build up simply because there are too few people available who are good at the things they do. There are, in many cases, no shortages in the numbers of applicants for skilled positions. What is in short supply however are applicants who could be trusted to do the jobs successfully.

The result is that employers must take these people on and train them to their own standards or else search for appropriate candidates in overseas economies.

The point is that there is a continuous need to upgrade the skill base within the community and to change the pattern of skills that are available. It is this process that makes it imperative that proper attention be given to education.

In a sense, there is no level of education that would be 'too high'. The question is really the optimal amount that should be spent on education.

When the education dollar that has been spent brings with it insufficient return then there is too much being spent on education. It is in trying to put some flesh on this bare-bones abstraction that a good deal of the debate on education is about.

The skill base of the labour force will never be adequate to the ideal. The aim is to ensure that enough is spent and is spent properly to guarantee that our community objectives are being met.

CAI does not however look to the tertiary education system to provide graduates who are trained for particular functions within industry. We do though seek the installation of a greater 'work place orientation' or 'practical application' within the education system. The extent of this within any particular field of study would however need to be assessed on a subject by subject basis.

Employers look to the education system to prepare graduates for work in industry, both with respect to their theoretical knowledge of particular subjects and their awareness of the environment within which these subjects are applied in industry. We expect further that graduates have some appreciation of the concerns that employers have in engaging new employees, and the factors that determine priorities and decisions that are taken within enterprises.

The subsequent training of graduates for particular work activities is in our view the responsibility of the individual employer. The approach taken to this training, and the content of the training, will of course vary greatly between different work functions and between different enterprises. The quality of training will also differ.

Whilst there may be certain drawbacks with this individualistic approach to job specific training, in our view it is the most appropriate system in a competitive market economy, and we therefore do not propose that any additional training measures be considered through the education system relating to the training of graduates for work in industry.

WHAT RESOURCE MECHANISMS, GOVERNMENT AND PRIVATE, ARE REQUIRED FOR HIGHER EDUCATION?

There is far too little talent available in this or any community that we should allow it to be squandered through a refusal to support its development.

Employers therefore believe that means must be found to ensure that all those with ability are able to develop their natural aptitudes and talents, but the means chosen must be far less wasteful than the free tuition that is now the means used to ensure that no one slips through the net.

In the view of employers, this is an extremely inefficient approach since it wastes tremendous sums of money on educating those who could and should pay for their own education.

The result is that the sum total of funds available for education are far lower than are available in other communities where the state does not fully subsidize the education of every single tertiary student.

Redirection of funds away from this needless total subsidy towards other more productive uses of our funds would greatly improve the efficiency of allocation of the education dollar in Australia.

It would also help weed out the less committed who choose tertiary studies as a means of temporizing and would open up positions to those who are genuinely motivated.

Of great importance therefore in assuring that the education system is producing the right kinds of graduates would be an increased reliance on tertiary institutions in funding themselves through the generation of tuition fees.

Competition even among public sector providers of education for fee paying students would help to ensure that the courses offered did have a genuine workplace value.

Students would themselves look at the education they are receiving in a more pragmatic way since they are paying for part of its cost out of their own pockets.

This would be particularly so if there were a system of loans instituted that students had ready access to, but which came due upon graduation. This form of change would make students think more about the practicalities of their chosen courses and of the likelihood that they would find an employer seeking the kinds of talents they are developing.

The other initiative that has the potential to become more important in Australia is the private sector tertiary institution. Although this is just beginning, there are areas that employers want developed that are not being sufficiently covered at the moment.

For the most part this is currently restricted to management education. This is the type of expertise that management has been most keen to improve.

This however is an approach to the development of other kinds of expertise that may need to be developed. There seem to be signs that there is a turning away from the financial side of the expertise of management towards a realization that an absence of technical know-how is keeping businesses back.

It is too early to say how this changing perspective may develop, but the signs are that there will be more attention paid towards developing the technical side of managers and towards developing managers from the technical side of the business.

The result of this may well be an opening up of private sector technical schools.

Policy should therefore encourage the development of such private sector educational institutions. There should be a policy that allows government support for these sorts of initiatives.

Where large amounts of private capital are being sunk into educational capital, where there truly are financial risks being accepted by the private sector entrepreneurs, there is scope for the government to assist.

The attitude that says that private sector education should be fully funded from the private sector, particularly when the vast majority of students are heavily subsidized, would deny this community access to funding for education not otherwise available.

It would also allow an additional measure of market sector direction to be applied to the education dollar. By attracting capital from the private sector, it would increase the total resources available rather than diminish them.

And because the resources would only be put into sectors of education where there is a perceived insufficiency, the pattern of education delivery would more closely conform to the needs of the business community.

EXTENT TO WHICH TERTIARY INSTITUTIONS SHOULD CONCENTRATE ON GENERAL EDUCATION (ADAPTABLE SKILLS) OR JOB SPECIFIC SKILLS

CAI does not see this issue as simply a choice between general education or job specific skills.

CAI believes it would be expected in any occupational grouping that job specific skills would be taught in the workplace either through on the job training or company based training programmes. We expect however that the education system should provide students with a sufficiently practical treatment of the discipline taught for the student to be reasonably prepared for integration into the workforce, both in terms of technical knowledge and awareness of the working environment.

Whilst not favouring teaching of job specific skills, this does not mean that we would go to the other extreme and support tertiary institutions concentrating upon providing general education (adaptable skills).

We believe there needs to be a considerable emphasis on education in technical disciplines which will be needed within industry throughout the 1990's and into the 21st century. Teaching in 'adaptable skills' may form part of such courses. For example a large proportion of students may be exposed to basic computing subjects, or inter-personal and general problem solving subjects, within particular technical disciplines. This should not detract from the major emphasis of the tertiary education system being upon producing persons who have the specialist knowledge needed to be productive in Australian industry.

Subject to the above comments, the major concern we have with our tertiary system however is not with the content of particular technical courses, but rather with the overall orientation of this system.

Whilst our tertiary institutions may produce a sufficient number of graduates in some specialist areas to meet the immediate needs of industry, and whilst these persons may be reasonably prepared for the working environment, this would not necessarily indicate that the system is succeeding in fulfilling its proper role of laying the foundation needed to meet the future needs of our economy where:

- the standard of living in Australia is comparable with, or higher than, the other major industrial economies; and

- where the quality of life is comparable with those other societies.

In this respect we are concerned that the education system may be providing too many 'generalist' places where the studies are not particularly relevant to the needs of industry either now or in the foreseeable future.

It is of no benefit to a future Australian society that our education system merely produces a 'sufficient' number of technically qualified persons to meet immediate needs, but then also produces a very large number of graduates who are well educated but in areas that are not in high demand within our industrial society. Examples may include some Arts or Social Science Studies.

Whilst not in any way understating the importance to society of education in such 'generalist' areas, we do not believe university places should be available in large numbers to persons who merely wish to fill in time in colleges or universities, but who have no specific direction or orientation in their studies.

All too often such generalist courses produce large numbers of persons who have completed their education, but are virtually unemployable. They are too highly qualified for routine administrative tasks but are not sufficiently qualified for specific technical functions that are needed in industry.

Our response to this issue therefore is:

- we do not expect tertiary institutions to teach job specific skills;

- we do wish institutions to produce technically qualified persons whose education is relevant to the needs of industry and who have an awareness of the working environment;

- we support the incorporation of teaching of generalist components or adaptable skills within technical courses at colleges and universities;

- we do not believe that the teaching of generalist or adaptable skills in isolation will contribute significantly to the future development and competitiveness of the Australian economy;

- we therefore believe there should be a review of the educational resources allocated to 'generalist' college and university places so that the proportion of graduates with qualifications or skills not in demand in industry is reduced, and the proportion of students with skills that are relevant to the needs of Australian industry and the international market place over the next decade or so is increased.

VOCATIONAL NEEDS PROFILES TO BE MET BY A HIGHER EDUCATION SYSTEM

CAI does not consider it is feasible to endeavour to identify in any detail the future employment needs of Australian industry, and particularly the levels of demand for individual qualifications or skills. Manpower planning in Australia has always been a hazardous occupation. The only certainty is that the needs and priorities of industry will change over time, and the rate of change will vary greatly between different industries and within different occupational groupings.

We believe however that to the extent that broad directions can be identified for the future development of Australian industry, these should be taken into account in planning within the education system. Adjustments must then be made within this framework in accordance with developments occurring from time to time.

In order to achieve the levels of responsiveness needed in the education system, we believe input from industry should occur in the first instance at the following three levels:

- the relevant Federal and State Ministers of Education should have access to informed advice from industry on trends and developments and their implications for the education system: such industry input should be taken into account in the establishment of funding priorities for education;

- close contact should be maintained between industry representatives and senior departmental officials to ensure these officials remain constantly aware of industry's needs;

- industry representatives with relevant experience and skills should be actively involved in curriculum development.

In addition to the above we believe industry representatives can play a valuable role in participation in consultations at the faculty or departmental levels within universities and colleges. We believe the administrative experience that industry representatives can bring to the deliberations of the academics responsible for the management of these institutions can be of significant benefit.

In advocating consultations at these various levels, CAI believes that this process will be most effective if the contact with industry representatives is coordinated through representative organizations of employers rather than through ad hoc contact with individual business representatives.

Whilst individual contacts may produce valued assistance to certain sections of the education system, we believe that greater long term benefit will derive from the presentation of carefully developed employer policies by persons who have the backing and resources of established organizations of employers behind them. This mechanism also ensures greater consistency in the representation of employer views and provides avenues for follow-up action, and for replacement of representatives where business demands restrict the availability of any individual.

FLEXIBILITY IN TYPES OF COURSES OFFERED

One of the potentially most useful methods of approaching the problems of the inadequacy of particular technical disciplines is to find ways to develop part-time working situations that allow persons to develop their formal qualifications while still employed.

The merits of this type of system is that there is a closer match between the needs of a job and the subject matter that is taught. An employee is more aware of the knowledge and skills that will be useful in pursuing a chosen career.

The matters that an employee is aware of from working on the job are often matters that would not have come to the attention of a student. Return to education on a part-time basis can be an invaluable supplement to the formal schooling undertaken while a full-time student.

This is partly catered for by the use of courses outside business hours and such courses have become important adjuncts to the formal schooling process.

But it is a slow process and for those which family commitments it is often extremely difficult. There should therefore be some consideration towards implementing a programme where employers are subsidized to allow them to encourage their employees to obtain additional educational credits while remaining on the payroll in a part-time capacity.

This same sort of process, although somewhat in reverse, is implemented with the various sandwich programmes a number of institutions offer.

In such programmes, generally final year students spend a period actually working in their chosen area of expertise. They then become more immediately acquainted with the knowledge and skills they will need when they enter the full-time workforce.

These programmes have a semi-official position in the schools that offer them but are mostly a product of the individual schools themselves. There is generally little assistance offered from governments, either financially or in terms of helping discover places for students to work in.

This situation should be reversed. Sandwich programmes are an ideal form of bringing schools and business closer together. Students will return after sandwich years with greater experience of the kinds of things they will need to know and there will be additional pressure on educational institutions to ensure that course material is relevant to business.

It is also an increased check on the schools since if the students are not being taught useful material there will be greater difficulty in placing them in workplace situations.

These two changes in the formal apparatus of what constitutes an acceptable educational programme would go a long way towards forging closer links between business and education. By having this in-built cross fertilization of business and education there would be more certainty that the educational system is producing students that meet the needs of both the business community and of the students.

INDUSTRY/EDUCATION LINKS

Education is an individual experience that will make the person capable of taking part in the community. It is simply not possible to conceive of education being considered to be successful where the person at the finish is incapable of productive activity. This ought to be too obvious to even need mentioning but the situation has become such that in many circumstances there is the view that education towards a career is somehow the antithesis of a 'proper' education system.

The reality is that there should be a close relationship between education and industry, and it is a relationship that is worth cultivating and developing further. Industry looks to tertiary institutions to provide the following:

- graduates who are able to undertake the professional roles that are needed in the management and operation of industry;
- a pool of expertise that may be tapped through a range of consultancy agreements where those who are employed by tertiary institutions also provide advice and information to businesses;
- research that is made available to the entire community, this being a vital part of the activities of a modern tertiary institution; and
- an infrastructure that can be used to assist in paid research on behalf of industry.

In turn, industry may properly provide the following to tertiary institutions:

- funding of certain activities of a tertiary institution. At its broadest level the funding can be philanthropic, in that industry provides resources to institutions to upgrade the educational facilities available in the community. But tertiary institutions can also accept funds from industry to set up research and teaching facilities for subjects that are of specific interest to industry;
- human resources, where the expertise of individuals professionally engaged is tapped to provide a useful background to subject matter being taught; and
- educational aids which are developed by industry to highlight issues as seen by business firms. There is resistance in some quarters against such items due to an anti-business ethic sometimes found in certain areas of the educational establishment. Nevertheless, teaching material of this sort is useful and indeed businesses should be encouraged by tertiary authorities to provide them.

The role of the university must adapt to the changing needs of the community it serves. The subject matter of courses and the research carried out cannot be justified entirely by the personal interests of academics. While academic publications and standing have been the traditional road to tenure and advancement in tertiary institutions, there also needs to be room for a successful university career for individuals who concentrate on questions that are of a practical interest to business.

Thus there should be avenues for advancement that are the result of for example, consultancies that have been attracted by individual members of a faculty. A reputation as a useful consultant to business and a series of consultancy reports should provide a member of a tertiary institution with a similar entitlement to advancement as another member of the faculty who has published a series of articles in academic journals.

Indeed, tertiary institutions should positively encourage faculty members to seek out business contacts and to produce research that will have economically useful results. This should not supplant the traditional role of the university as a provider of free and independent research, but should complement it.

In considering teaching links, we start from the view that we believe the education system would be improved if all teachers had some work experience in an environment other than educational institutions.

In practice however it would be difficult to envisage a situation where there was widespread participation by teachers in industry. Firstly the 'limited tenure' jobs which teachers would need are not likely to be available in large numbers, and secondly there would be significant costs to industry in taking on persons in certain functions only to lose them after a short time back to the education system.

Although widespread involvement of teachers in industry may not be feasible, it may nonetheless be appropriate for secondments or industry placements to be made on a limited basis so that some teachers, and certainly a greater number than now occurs, could gain industry experience.

A more realistic approach to increasing industry links may be greater utilization of industry representatives in speaking to students on particular issues - these could include both technical aspects of certain subjects and general working environment issues. We believe this practice should be actively encouraged.

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W(H)ITHER BINARY?

A Seminar on the Organization of Higher Education
in Australia for the 21st Century

SEMINAR PAPER

Session One: Tuesday 17 March 9.30 - 10.25 am

THE BINARY SYSTEM:
A STUDENT PERSPECTIVE

Ms Janine Freeman
Vice-President, WA Post Secondary Students Organization

With assistance from:
Ms Amanda Gillet
Ms Carol Easton

THE BINARY SYSTEM:
A STUDENT PERSPECTIVE

When the Martin Report first presented what was to become the binary system in the report: Tertiary Education in Australia: Report on the Future of Tertiary Education in Australia, it set a great change in the direction of post secondary education.

The report recognized that too much effort had been placed upon university education as the basis for post secondary education and faced the question of how increasing demand for extending the availability of university education to a broader range of Australian population was to be achieved. Additionally, the report recognized many important factors concerning education in the community that remain valid today.

The Martin Report accepted tertiary education as an investment for the community which reaps reward ...

> 'The welfare of the individual and of society provide obvious grounds for an enlarged national commitment in education. It is both realistic and useful to regard education as a form of national investment into human capital.'

The report also understood the need for a tertiary education system that was both more accessible and diversified, and that would fulfill the social and economic needs of the community in a local and national sense.

> 'Australian universities have grown up according to a uniform traditional pattern, and it is unrealistic to imagine that they alone can provide the variety of education needed by young people with a varying range of abilities and a broad array of educational objectives.'

Recognizing that an educated population is in the national interest the Martin Report facilitated increased Commonwealth commitment to the funding and planning of tertiary education through the proposed establishment of an Australian Tertiary Education Commission, to replace the Universities Commission.

The Australian Tertiary Education Commission, now CTEC, functioned as an advisory body on the levels of funding for all the areas of tertiary education.

The issues addressed by the Martin Report and the changes incurred through it allowed for the expansion of tertiary education, providing students greater access to education, and increasing the diversity of study opportunities.

This diversity was provided through the establishment of colleges emphasizing courses with a vocational/technological slant.

A second report from the Commonwealth Advisory Committee on Advanced Education saw the role of the colleges of advanced education as being ...

> 'To train students so that immediately after graduation they may play an effective role in commerce, industry, the Public Service or the Arts. The Universities also offer vocational training but they have another function as well - the discovery and expansion of knowledge.'

Essentially, Colleges were to differ from Universities in:

(a) the teaching emphasis: of an applied nature rather than theoretical;

(b) vocational course offerings;

(c) direct relationship with industry, commerce and relevant areas of the public service;

(d) more flexible entry requirements

(e) significant role in the provision of higher education to remote areas;

(f) greater opportunities for part-time studies;

(g) more attention paid to teaching relative to research. (Gillett p3).

These and other differences identified for the establishment of Colleges seemed to be designed both to improve access to higher education for all students and to create institutions for defined categories of students.

It appeared that whilst creating greater numbers of places for those unable previously to gain access, the definitions that separated the two institutions, universities and colleges, created a class system within education, placing universities firmly on top of the hierarchy - as the source of the nation's intellectuals.

However, since the establishment of colleges of advanced education and the institution of the binary system, many changes have occurred in the functions of both universities and CAEs causing the convergence of their roles in higher education.

1973 saw the enlargement of the CAE sector as teachers' colleges emerged. This, combined with other factors, such as demand on the CAEs, caused changes within the student population, and liberal/humanities subjects became an acceptable addition to curriculum.

CAEs grew from the basis of a restricted number of vocational subjects at diploma or undergraduate levels to offering a broader range of courses, and the increased availability of post-graduate awards merged into research, the perceived function of universities.

This evolution of the CAEs benefitted students as colleges provided an attractive alternative to universities for study.

However, students now must face the confusion of distinguishing between universities and CAEs and their functions as educational institutions. This confusion has been reinforced by the binary system and the unfair status it instills upon universities over the colleges.

Students must be able to choose from each of the equally viable institutions without the influence of imposed binary system criteria.

One of the inequities WAPSSO believes exists within the binary system of higher education (that may foster this confusion) is the limited range of post-graduate awards that can be offered by CAEs. In addition, an inequity exists in the approval that CAEs have to seek from the State

coordinating body for expanding their range of awards, while universities have a self-determining role over this procedure. It is with this in mind that WAPSSO supports applications by CAEs for self-accreditation and believes it benefits the students to have equal awards procedures across the higher education spectrum.

FUNDING

One of the greatest anomalies concerning the binary system is its use to justify unequal funding between institutions.

The initial acceptance of the Martin Report's recommendations for the development of institutes and colleges was likely to have been influenced by the cost factors.

Although the Report prescribed that institutes and colleges should be funded at the same level as universities, this was not accepted by the Government of the day nor subsequent Governments. CAEs were rationalized as being equal but cheaper than universities because of the emphasis on teaching rather than research, and the belief that CAEs focused upon low cost vocational courses rather than high cost science based technological courses. While technically this situation still exists, functionally the two sectors have merged significantly in their offering of courses to the point where little distinction can be made.

However, 1983 Commonwealth recurrent grants to universities amounted to $1,280 million, while for advanced education recurrent grants were $829 million. University enrolments for 1985 were 138 600 and enrolments in advanced education were 140 400. Though universities enrolled only 1 800 fewer students, they received 61% of the total funding for higher education.

Such a comparison of the sectors simply based on relative enrolments, however, is too simplistic and other criteria must be used. These must include: the types of enrolments, the distribution of the enrolments within the various faculties, the distribution of enrolments according to the level of study, the geographical location of the institution and the types of activities, besides the teaching with which the institution is involved, in order to determine reasonable criteria for divergent funding.

The information provided regarding CTEC's funding formulae for the differential funding of universities and CAEs is, however, limited. It is with this in mind that WAPSSO questions whether the funding levels are legitimately set on differing functions and needs of the institution, or simply based on status and past history.

WAPSSO acknowledges that universities do have a higher proportion of post-graduate students and are more involved in research. However, the size of the discrepancy remains unjustified in terms of the funding differential.

Some of the discrepancy appears to stem from the historical background of the institutions. CAEs were seen to cater for students from lower socio economic backgrounds in comparison to their university counterparts and thus, perhaps, it was assumed that they would hold lower status jobs once they graduated.

The resultant differences in funding, that is to say, the lack of funding for the CAE sector, means students studying a particular course at a CAE instead of a university are comparatively disadvantaged, in terms of the resources that will be directed into the teaching process.

WAPSSO believes there is no justification for such discrimination when graduates of a particular course offered at both types of institution achieve a similar if not the same level of award and are now expected to come out and do the same job with the same degree of proficiency and level of responsibility.

The problems of unequal funding for CAEs are compounded in periods of education cuts like those suffered in the last ten years, where growth in institutions is not met by equal growth in funding.

The impact is greatest upon the CAEs due to the unequal funding now and the greater rate of growth in the CAE sector, resulting in cuts in teaching staff and leaving students within CAEs increasingly disadvantaged.

Whilst WAPSSO understands the need for such a move for Curtin, it believes a change in the system would be more beneficial, since the WA College still remains (as does Curtin until it is recognized as a university by the Federal Government through CTEC) as a disadvantaged campus due to inequities within funding.

The shift by CAEs towards more university-structured awards, and the increase in research through post-graduate level studies including the development of masters degree programmes and the move towards doctoral degrees at some institutions, have been the target of criticism. This criticism comes mainly from those who perceive this progress as a challenge to the status of universities.

These criticisms are not really valid in the 1980's. The structure of society and therefore the labour force has altered since the original concept of advanced education was developed. Vocations such as nursing, teaching, technicians, etc., have become more advanced and complex as science and technology itself develops. A corresponding upgrading and change in the content, length and teaching of such courses therefore becomes necessary.

Also, there are many areas in which the advanced education sector has special expertise such as business studies, teacher education, art and design and the therapies, and it is appropriate that colleges should offer post-graduate study opportunities and contribute to research and the growth of knowledge in such areas.

The advanced education sector does have a clear perception of its role as being different from that of universities. CAEs have the major role in training for the vocations and in applied research. They also have a special role in providing higher education to remote areas and through more flexible admission policies, making higher education more accessible to people traditionally disadvantaged in the tertiary education sphere.

To interpret these differences of approach and content to mean that the lid should be put on the advancement and development of advanced education because it is seen to be at the expense of universities is short sighted at best and elitist at worst. It is to suggest that the role of the CAE is not only different but inferior and that the students catered for in colleges have less intellectual potential than their counterparts at universities. This line of reasoning is highly subjective and has little foundation. Competition for places in any institution of higher education is intense and becoming increasingly more so. The development of higher degrees and the inclusion of research

within the advanced education sector should be seen as an inevitable extension of its role if teaching is to remain innovative and relevant, as well as responsive to the economic, technological and social variables of the community it serves.

This paper has attempted to outline essential (but by no means all) inequities which exist within the higher education system. These inequities have resulted in an advanced education sector which is disadvantaged as a result of the highest status being given to universities. Such inequities are then passed on in teaching and thus directly disadvantage students in their education. Here the measure of achievement and hence, qualification, is not only ability, but also the institution attended. In addition, students are unnecessarily confused in their choice of institution due to this obsolete distinction in educational structures.

WAPSSO believes that the current binary system of funding for post secondary education is inequitable and inappropriate given the strong contribution made to community and economy by all sectors of the education system.

WAPSSO therefore believes a complete review of the system is needed. Such a review should include full consultation with all areas of the education community.

NOTE:

The system of post-compulsory education in Australia is really a ternary, not binary system when TAFE is included. Omission of any discussion of TAFE in this paper should not be interpreted as a lack of recognition of its importance. TAFE caters for around one million students throughout Australia and does more in terms of offering education opportunities to a broad spectrum of the population than the other two sectors combined.

In the long term, any serious challenge to the present funding system and organization of post-compulsory education must include TAFE in its analysis.

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W(H)ITHER BINARY?

A Seminar on the Organization of Higher Education
in Australia for the 21st Century

SEMINAR PAPER

Session One: Tuesday 17 March 9.30 - 10.25 am

INCUBATORS OF ANXIETY?
STAFF NEEDS IN UNIVERSITIES AND COLLEGES

Emeritus Professor Bill Walker
Principal and Chief Executive Officer
Administrative Staff College, Melbourne

INCUBATORS OF ANXIETY?
STAFF NEEDS IN UNIVERSITIES AND COLLEGES

The lead article in Phi Delta Kappan for December 1986 is rather sardonically entitled 'Reform? Higher Education? Don't be Absurd!' In it Harold Hodgkinson (1986), a former Director of the National Institute of Education, describes American higher education as being in a 'scandalous condition' and warns that demographic trends will inevitably force changes whether the institutions concerned want it or not.

While Australian higher education is hardly in a 'scandalous condition' - far from it - it is certainly in disarray and the words 'Reform? Higher Education? Don't be Absurd' might reasonably be said to reflect the pronouncements which have been emanating from Canberra - and, as I shall show, from the mouths of too many academics - in recent years.

What, then, of Australia? Social trends are likely to force significant changes here, too. Recent changes have been relatively small, and the last decade has seen but minuscule capital expenditure in colleges and universities. Growth in recurrent funds has been small, too - - and that growth seriously eroded by incremental creep. In the same period the professoriate has aged and numerous tutorial positions have been abolished and - ichabod, ichabod - student staff ratios have worsened.

Yet by most standards, including those of the leading Western nations, the higher education 'system' remains in relatively good shape. Constantly criticized in the media and among the business community for not catering for sufficient numbers of the age cohort it has nonetheless accepted well over 10 000 additional students without receiving any major boost in resources to cater for that extra load. The institutes and colleges have done this while remaining essentially conservative, staid institutions.

It must be said, in fairness, that reform is occurring in spite of long-standing central policies and mythologies. Moreover, it is taking place piecemeal and in ways which reflect the growing entrepreneurship and intrapreneurship of both educational administrators and politicians, especially at the State level.

Since the second world war there have been several developments which have materially altered the shape of Australian higher education. Indubitably the most important of these were the decisions (a) to establish a binary system largely on the British model and (b) to make all funding of higher education the responsibility of the federal government. Both in interaction are now threatening to prove the Achilles heel of academe as it attempts to adjust to the ambiguity and paradox of Australia's post-industrial society with its likely emphasis on quaternary industry, substantial reliance on high technology, provision of ample leisure time, and widespread concern for values, culture and the arts.

We see all around us the binary system at bay. The most obvious local move is the establishment of the Curtin University of Technology; in Sydney the Western Suburbs proposal opens doors to new possibilities; in Geelong Deakin University teaches courses which many would say properly belong to the college sector; in Melbourne La Trobe University and Lincoln Institute approach consummation of their union. There are, of course, examples which point in the opposite direction. In Darwin,

directly contrary to the recommendations I made in my report commissioned by the government of the Northern Territory, a university college has been established quite separate from the institute of technology and other tertiary level activities, and on the Gold Coast of Queensland, the nucleus of Bond University smiles enigmatically at all.

Meanwhile, the Committee on Effectiveness and Efficiency in Higher Education (1986) urges the maintenance of the binary system while at the same time making recommendations which chip away at its integrity. There should be no special funding for research in CAEs but under certain circumstances funding should take place, Ph.D's should be the responsibility of the universities but under certain circumstances CAEs may award Ph.D's. While these are perfectly understandable, thoroughly realistic proposals, they are, like it or not, accept it or not, symptoms of the apparent inadequacy of the Martin model to cope with the societal complexity referred to above.

The mission statement which by implication provides guidelines for today's system is at its core twenty years old. It was born in the ethos of a lucky country still committed to an industrial society.

As far as I can ascertain there is no mission statement for twenty years on - - for a much less lucky country facing the myriad challenges of a post-industrial society. Without such a mission statement there can be no effective corporate (national) strategy, no really long term planning and no meaningful criteria for assessing efficiency and effectiveness. It is approaching, like the men and women of Shakespeare's 'world stage' a condition of 'sans teeth, sans eyes, sans taste, sans everything'!

I have been asked to look at this changing binary system through a discussion of the needs of academic staff members in universities and colleges. This is, to say the least, a challenge, if only because the question of the definition of 'needs' and its related concept 'needs satisfaction' is by no means an easy one.

'Needs' are constantly changing phenomena, as is implied in Beswick's (1985) excellent review of trends in higher education research in this country. Daily we watch them being shaped by government policies and television advertising, for example. Yesterday's innovations may be today's needs. Today's needs may be tomorrow's mistakes or irrelevances, dead as the lecture notes of an emeritus professor. In the face of Australia's ad hoc policies on higher education, too many of its participants, for the reasons given above, tend to express their needs in terms of the past, and occasionally, the present. This is only too understandable: they have been given no clear picture of the future.

The argument I intend to present here is that any higher education system, binary or otherwise, will succeed only to the extent that the needs of academic staff are met and, more importantly, to the extent that those academics receive the necessary leadership to have their needs suitably shaped and then recognized. Moreover this I believe to be true irrespective of the extent of government or private control of the system. It places the future of the system squarely in the box of the policy makers at national, state and institutional levels.

NEEDS

Let us turn briefly to the fundamental question of needs. It is axiomatic that those responsible for the governance of institutions have two key tasks: organizational achievement (i.e. meeting goals) and

organizational maintenance (i.e. meeting the needs of those involved in working to achieve goals). Since all of us worth our salt are concerned to produce organizational animals which should be not merely alive, but proactive and dynamic, it can be said that the key aim of a Vice-Chancellor or Director (and, by implication the head of any national or state commission concerned with higher education) is to ensure that their respective organizations are in what Lonsdale (1964) refers to as a dynamic equilibrium achieved through developing an appropriate integration of task-achievement and needs-satisfaction.

It is to the latter part of this equation that I now turn. It is after all, surely not necessary to point out to this audience that in any organization, bakery or hospital, bank or college, it is <u>people</u> who count. As Peters and Waterman (1984) put it in their classic study of the most successful US enterprises:

> 'Caring runs in the veins of the managers of those institutions. <u>People</u> are why those managers are there, and they know it and live it.'

Those among you who know the literature of management will recall that Roethlisberger and Dickson (1939), both of Harvard, observed nearly a half century ago that 'An industrial organization may be regarded as performing two major functions, that of producing a product and that of creating and distributing satisfaction among the individual members of the organization'.

Twenty years later, Guba and Getzels, working at the University of Chicago, produced a model which has profoundly influenced theory and practice in higher education and beyond. As Guba (1960) put it,

> 'The unique task of the administrator can now be understood as that of mediating between ... two sets of behaviour-eliciting forces, that is the nomothetic and the idiographic so as to produce behaviour which is at once organizationally useful as well as individually satisfying. Such behaviour on the part of personnel is the highest expression of the administrator's art.'

Clearly, any dynamic organization sets out to satisfy the needs of its workers, whether professors or processors, by meeting perceived needs and by offering inducements and incentives. The resulting job-satisfaction and productivity constitute what we know as 'morale'. However, as every chief executive knows 'perceived needs' can refer to by-gone practices, unproductive behaviour and outmoded goals. High morale is not necessarily associated with change.

A great deal has been written about the needs of individuals in organizations, probably the most influential works being those of Maslow (1954) whose 'hierarchy of needs' is widely known and of Hertzberg (1959) who differentiated between job factors known as 'motivators' and non-job factors described as 'hygiene'. As he put it, 'the factors that lead to positive job attitudes do so because they satisfy the individual's need for self-actualization in his work.'

It is this self-actualization which presents the greatest challenge to both Vice-Chancellor and Director, who must rely on 'power with' rather than the 'power over' enjoyed by many of their colleagues in business. Unless he or she is particularly flexible in personal outlook and has devised patterns of management which reflect that 'ambiguity and paradox' which is now commonly recognized as being characteristic of modern

enterprises, the organization might not be able to tolerate the individual autonomy and independence of the so-called 'self-actualized person'. After all, as Chris Argyris (1957) has shown, there is a basic incongruency between the needs of the individual and those of the organization. It is a constant challenge to the chief executive of any enterprise to ensure that this incongruency, often exacerbated by bureaucratic procedures, is kept to a minimum.

The point that I hope to make at this stage of the paper is that the needs of staff are primarily met through good leadership, irrespective of the title of the institution - - and irrespective of whether or not it is part of a binary system. One suspects that many of the criticisms and complaints that are heard from staff members in both the university and college sectors have absolutely nothing to do with the 'binary syndrome'. Putting this another way, if the binary system were abolished tomorrow, a great many unmet needs would survive unless heads of departments, deans - - and let's face it - - chief executives become better managers.

This is not to imply, however, that the binary syndrome does not produce particular patterns of need. Indeed, it obviously does so. Even the most naive tyro in the field of industrial relations, for example, knows that it is not the absolute but the comparative which produces the most strongly expressed 'needs' and 'demands'.

The logic of my argument, then, is as follows:

1. The efficiency and effectiveness of any institution is chiefly a function of the job satisfaction of those who work in it.

2. Job satisfaction and high morale are in large measure products of the extent to which the needs of those who work in the institution are met.

3. Australian higher education institutions and especially universities are largely collegial in patterns of governance and management. Moreover, the non-university sector of higher education is gradually adopting patterns of governance and management which emphasize collegiality.

4. Ergo, the extent to which higher education institutions effectively and efficiently meet the needs of Australian society is primarily a function of the extent to which the needs of those working in the institutions concerned reflect the needs of that society.

5. The shaping, definition and achievement of such needs is essentially the product of the climate created by those responsible for the development and implementation of policy both in the system and in the individual institutions involved.

Such needs, as in any organization, are psychological (both cognitive and effective), physical and material. The resources needed to meet these are good leadership skills, competent managerial support, appropriate physical facilities and adequate financial resources. It is patently not possible effectively to discuss all of these in this brief paper, and an attempt will be made here to deal with only the first two of them. It goes without saying, of course, that the meeting of these needs has social, political and economic implications for both society in general and national and state higher education coordinating bodies in particular.

NEEDS OF ACADEMICS

Having agreed that academics, like any other member of the workforce have needs which wise senior personnel will attempt to both shape and meet it is worth asking the question, to what extent academe has special characteristics which produce special needs.

It was the late and much respected Stephen Bailey (1974) of Syracuse who noted that campuses are 'incubators of anxiety'. Jencks and Reisman (1968) had earlier observed that 'academics are neither a tolerant nor an easy going species.' Academics' feelings of irritation and frustration they described as 'apparently congenital'. Having worked in and visited universities and colleges in many parts of the world I can only agree with their observations! Indeed, it would be naive to expect otherwise. When one is trained to probe, prick, question and argue one can hardly expect jovial slaps on the back and great riches for doing so. As Confucius is said to have put it, 'He who spits in the wind gets his own back!'

I have said that one of the most significant moves in Australian higher education was the establishment of the binary system. To what extent has the existence of this system helped to shape the needs of academics in Australia? Are the needs of college academics different from those of university academics?

In the early 80's Anwyl and Bowden (1983) of the Centre for the Study of Higher Education in the University of Melbourne published a study of the characteristics and attitudes of academics in both universities and colleges as observed in 1978. They begin the report by pointing out that ever since the acceptance of some of the major recommendations of the Martin Committee in 1964 there has been constant debate about the distinguishing characteristics of the two types of institution and concern about the blurring of institutional differences, much of the latter due to academic drift resulting from competition.

At the time of their study, conducted late in 1978, more than 70 per cent of the academics sampled were in fields like the social sciences, architecture and commerce which overlapped both sectors. Only medicine, veterinary science and dentistry remained the exclusive domain of the universities. Despite this marked overlap there were some clear and important differences between the two groups of academics. For example:

1. University staff spent twice as much time on research as did college staff.

2. University staff had a much lower teaching load in terms of contact hours.

3. University staff were much more likely to have given a conference paper overseas.

4. University staff were much more likely to hold a doctorate.

5. University staff were much more likely to hold an appointment above the rank of lecturer.

In spite of these largely expected 'factual' differences there were significant areas of agreement on attitudes to academic and social issues. For example:

1. More than four-fifths of both believed that universities and CAEs should offer limited term appointments.

2. Ninety per cent of both groups thought that their institution should be governed by democratic processes.

3. Most in both groups agreed on issues about protests, demonstrations and student political action.

4. Both groups tended to have similar views on questions of access to tertiary education including financial support for students, transfer between institutions and availability of external study programmes.

5. Both groups had very similar views on priority areas for government expenditure, and on social issues ranging from discrimination against workers to unions having the right to strike.

Summing up this and other responses, Anwyl and Bowden comment that differences between the two groups of academics are notable chiefly for the varying strengths taken on positions rather than on the positions themselves.

Yet, when the academics were asked to reflect on one another's sector, differences sharpened considerably, as the following points show:

1. Both groups believed that universities (95 per cent) and CAEs (74 per cent) should be clearly different institutions.

2. University respondents asserted that the university's key functions should be research, post-graduate and undergraduate training and vocational training (in that order), while CAE respondents saw their prime role as vocational training followed by research and postgraduate and undergraduate training. It is notable that no less than 79 per cent of university respondents opposed thesis degrees in CAEs.

3. Most CAE respondents opposed any limitation of the CAEs to vocational education clearly related to industry and commerce, while most university respondents took the opposite view.

4. The sample disagreed on whether an institution in one sector should be permitted to move to another (university 71 per cent opposed, college 60 per cent agreed).

5. On questions of public status, accreditation, comparative academic standards, conditions of employment, salary scales and student-staff ratios the opinions of the two groups generally moved in opposite directions.

The authors' study clearly demonstrated, then, that although the views and, presumably, needs, of staff in both sectors are quite similar when seen as academics qua academics the attitudes which they hold to one another are profoundly different. It seems that both universities and colleges, having accepted their respective missions, have succeeded

magnificently in acculturating their staff members to the particular academic ethos which government policy intended. However, there are some obvious minor caveats to this generalization:

1. The data were collected nearly 8 years ago before most of the significant 'leakage' developments referred to at the beginning of this paper occurred.

2. Within the research data there are differences within sectors, and especially within the college sector, where the sample varied from small provincial to large central city colleges.

3. Most importantly, the data do not reflect the determination and tenacity of that small but influential group of individual leaders who, in spite of published missions and policy statements, set out deliberately to change the status quo.

A further report by Anwyl and Bowden (1986) was published a few years later. This study was concerned with the attitudes of both university and college academics towards access and equity issues and its findings supported the trends noted in 1983. On the crucial question of transfers, which might be said to differentiate the binary from the Californian-type unitary system the academics remained rather conservative, with 44 per cent of university people, for example, wanting no changes in transfer arrangements from CAEs to universities. Predictably, college academics were readier than university academics to see conditions eased.

A fascinating picture of academic elitism was reflected in views about future enrolments in higher education. Both university and CAE staff agreed that a substantial expansion should take place in the TAFE sector, only a modest expansion in the college sector and no expansion or even a decrease in the university sector! Can such views seriously reflect the needs of post-industrial Australia?

If Anwyl and Bowden's findings are interpreted in terms of needs, it seems that respondents, though conscious of disadvantaged groups, for example, were not really prepared to take action to reform the system in order to cater for them. As the authors point out, what was wanted was 'a little more of the same'. The unpublished works of Everett and Entrekin and of Adamson cited by Anwyl and Bowden tend to support their conclusion that in the first five years of the 1980's the attitudes of academics moved generally in this conservative direction.

Anwyl and Bowden conclude, somewhat glumly one suspects,

> 'We suggest that there is relevance and not merely historical intent in our survey data and that academic men and women today are most likely to remain cautious about expansion and conservative about change as they consider the political demand for a large and more heterogenous higher education system.'

The sharpest difference between university and college academics was about sectoral definition and preservation. As the authors put it,

> 'The very strong emphasis, particularly by university respondents, on defining and protecting their sectoral rights suggests that inter-sector transfer and credit, and the creation of multi-level or comprehensive institutions or cooperative inter-sectoral arrangements will meet resistance.'

Pungently, they add, 'Reform has to work against a tradition which had made our interfaces as impenetrable and heavily defended as the Berlin Wall.'

If these figures and opinions are correct it is reasonable to assume that it is pointless to look to the current needs of the majority of academics if reform is to be achieved. In brief, the needs themselves cry out to be amended in the interests of the future.

Yet the gradual changes marking the passage of the last eight years could prove important for the next eight. Simple observation suggests that CAEs have been recruiting more and more well-qualified people, many with Ph.D's, who, in the past, would have gone to the now relatively static university sector. Such academics are likely to have a considerable interest in research and other scholarly activities and this, I believe, is already reflected in the advertisements for staff now being inserted in the Press by the colleges. In essence, the Ph.D's appointed to CAE posts are arrows pointed at the heart of the binary system: they will inevitably influence profoundly the needs of their college colleagues as the years go by.

It is worth repeating my hypothesis that change in academe occurs most readily when those in power in academe i.e. the academics, experience job satisfaction and have their needs met. If this is so the look out for reform in the higher education system is bleak indeed when these needs are in line with a world that is passe. A reasonable interpretation of Anwyl and Bowden's results is that with respect to policy issues directly related to the binary system the needs of university academics are in the main being met. Judging from the claims made by FAUSA and the AVCC in recent years the need is for more salary, more generous research provision and better physical plant, in short <u>for more of the same</u>.

It seems that it is in the college sector that the needs of many - - and especially those in the large metropolitan institutions - - are not being met. A substantial group - - it is not possible to say how large - yearn for university status and for the relative autonomy, research funding, post-graduate students and - oh glorious day! - the professorships which such status bestows. The director of one of Australia's most distinguished institutes of technology assured me that as many as 70 per cent of his staff held this view. It seems, however, that in the smaller colleges, the needs are more clearly represented by a jealousy of university promotions positions, salaries, travel opportunities and such perquisites rather than the prime academic symbols referred to above.

But are these needs, however expressed, realistic? Common sense suggests that neither the Commonwealth nor most states will want to become involved in running sixty or so institutions at or even near the level at present enjoyed by less than twenty, especially when traditionally salaries and general conditions of employment are in the main set centrally.

THE OPTIONS

There are several options which might provide Australia with a higher education system designed to meet the greatly expanded demand and much needed flexibility and transferability which the 21st century will indubitably bring. I shall suggest only three:

1. Retain the present binary system but encourage the local and entrepreneurial developments which are gradually changing it into something like a diversified unitary system. This would ensure central oversight by CTEC or an equivalent body but would almost inevitably delay reform.

2. Deliberately encourage a unitary system of diversity with CTEC taking the lead in undoing the binary system. This would almost certainly speed up change and ensure that it occurred in an orderly manner.

3. Hand the bulk of the funding of higher education back to the states, permitting each to develop its own system in its own way without federal participation except for a general accrediting and priming role.

Personally, I could live with any of these, believing the participation rate is likely to increase so markedly as the employment and leisure realities of the post-industrial society bite deeper into our psyches that as a nation we will be forced towards a unitary system, however diverse in operation. While I believe that option 2 is preferable to options 1 or 3 alone, I would prefer a mid point between 2 and 3.

In my thinking about possible Australian futures with their need for diversity and flexibility I look back with interest over the 30 years in which I have been involved with higher education in the state of Illinois. When I first went there as a graduate student in 1956 the state boasted several private universities dominated by the University of Chicago and Northwestern. Insofar as the state universities were concerned the great land-grant University of Illinois at Urbana dominated the scene, with two very much smaller state universities, both having grown out of teachers colleges, Illinois State Normal University at Bloomington and the University of Southern Illinois at Carbondale as 'also-rans'. There were two surviving teachers' colleges - Northern at Dekalb and Eastern at Charleston. The last named are now quite substantial universities in their own right and all the above state institutions operate under the aegis of two coordinating boards of higher education - - one for the University of Illinois and one for the remainder - - and receive a budget appropriate to their needs. All are called universities, but there is no doubt among the academic community and the people of the state as to just which is the most and which the least prestigious institution - - and consequently which deserves to be most generously treated by the state legislature.

A crucial element in the operation of the system, however, is the fact that each university sets its own salary levels and conditions of employment, these being negotiated individually with each applicant. Since salaries account for between 70 and 80 per cent of a university's recurrent costs it is obvious that there are enormous administrative advantages in the individual salary/tenure mix which is at the disposal of the institution's president.

I wonder whether such procedures would be acceptable (or achieveable) in Australian academe?

It is as true today as it was 30 years ago that applicants for positions at the university of Illinois are prepared to accept a substantial drop in salary for the privilege of joining its faculty, especially to a comparatively rare tenured position. They are attracted by the research opportunities available, the superior library and computing facilities, the reputations of its professors and the quality of its students. This negotiation of salaries is, of course, the system which applies at the private enterprise Australian Administrative Staff College and will, I suppose, apply at the Bond University and future similar enterprises, if they get off the ground. Such practices cannot but help to change employment patterns in the state institutions in the long run.

The Illinois reference is convenient: I could have as easily chosen California, once the blushing object of Sir Leslie Martin's eye, or some American state of small population like Hawaii or of great distances, like Alaska. Perhaps it will not be long before I can choose Western Australia for reference: is the proposal for a State university including the WACAE dead?

It is only too obvious to me that the binary system will change - - and that increasingly, Australians will favour the US or, perhaps, Canadian solutions over British models. Almost certainly this will be in response to community-wide social, economic and political needs rather than to the needs of academics as a whole - - unless the leaders and opinion makers of academe take the initiative, as I have repeatedly said.

Yet a system of diversity is obviously much more likely to be able to meet the needs of individual academics than one which pretends to provide only two types of institutional base. The frustration of being boxed in by only two 'official' forms of higher education, with the restrictions which this places on ambitions and career paths can hardly be congenial to the bulk of future Australian academics.

One can only hope that the hoary old arguments are not resurrected too stridently. Take the question of 'parity of esteem'. It is a chimera: consider if you will the comparative public view of the status of certain of the allegedly equal institutions in one sector: Melbourne, Monash, La Trobe and Deakin! Moreover, such differences are true even among the international 'giants'. In her remarkable book 'The Second Self', Sherry Turkle (1984) tells the following story about the Massachusetts Institute of Technology:

> 'Every spring, MIT students hold an unusual contest. It has the form of a beauty pageant, but it is a contest to choose 'the Ugliest Man on Campus.' For several weeks, the students who think of themselves as most ugly parade around the main corridors of the Institute, wearing placards that announce their candidacy. They flaunt their pimples, their pasty complexions, their knobbly knees, their thin, undeveloped bodies. They collect funds to support their campaigns. There is a vote. The proceeds of the campaign collections go to charity.

> I spoke with the ex-student, now a professor at another university, who began the contest more than twenty years ago. He is proud of his contribution to MIT culture. 'Everyone knows that engineers are ugly. To be at Harvard is to be a gentleman, to be sexy, to be desired. To be at MIT is to be a tool, a nerd, a person without a body. The contest just makes irony of the obvious.'

Of such to this day are 'the incubators of anxiety.'

In brief, I have had no reason to change my mind since I wrote a decade ago in Stephens and Roderick's (1975) Universities for a Changing World,

> 'the myth of 'parity of esteem' (is) ... simply and egregiously unreal ... the position will be no different if all the institutions are termed universities. Should that happen then ... there will develop a hierarchy of universities with the newly established teaching and vocationally-oriented colleges near the base of the pyramid and the long established research and professionally-oriented metropolitan universities (including the new technological universities) at the apex.'

To this suggestion of the inevitability of a unitary system of diversity there will almost certainly be the traditional conservative reaction which claimed that the Australian dollar could not be floated, that our banks could not be deregulated and that our two-airline policy could not be amended. There will also be the predictable rumblings from staff associations as they suspiciously eye incursions on to their turf. Their immediate response would be 'Reform? Higher Education? Don't be Absurd'.

But when the dust settles and the blood is washed from the floor a re-ordered hierarchy of institutions is likely to evolve, one which would hopefully allow the freedom of movement and negotiation of roles which some, at least, desire. Then the academic reputations of departments, faculties and schools could be earned and financial support based on a Foundation Program which, while rewarding both involvement and effort, maintains equity could be provided. But that is another story.

Meanwhile the stubborn and intractable fact remains that we have no national mission, no clear alternative futures, no strategic plan for higher education. We hobble along pretending that the sixties are forever.

Australia obviously awaits someone, be it Prime Minister, Minister of Education or Chairman of CTEC, with the leadership skills and courage to make the first move. Of course, it will not necessarily be a popular move. Machiavelli warned us a few centuries ago that 'there is nothing more difficult to take in hand, more perilous to conduct or more uncertain in its success than to take the lead in a new order of things.'

Personally, I prefer to take heed of the words of a twentieth century Australian, Sir John Monash,

> I don't care a damn for your loyal support when you think I'm right. When I most want it is when you think I'm wrong'.

Who, I wonder, is prepared to be thought 'wrong'?

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W(H)ITHER BINARY?

A Seminar on the Organization of Higher Education
in Australia for the 21st Century

SEMINAR PAPER

Session Five: Tuesday 17 March 3.20 - 4.45 pm

THE BINARY SYSTEM:
A COMMONWEALTH VIEW

Emeritus Professor Richard Johnson
Special Commissioner
Commonwealth Tertiary Education Commission

THE BINARY SYSTEM: A COMMONWEALTH VIEW

BINARY SYSTEMS

One sometimes gets the impression, reading the press and other writing on the binary system in Australia, that it is an anomaly peculiar to this country. One also sometimes gets the impression, though less so from those actually involved in higher education, that the sectoral boundary (whether one approves of it or not) is very sharp and clear.

In one sense it is. CTEC classifies institutions on Schedule 1 (universities) or Schedule 2 (CAEs) and nothing can be sharper or clearer. However within each schedule, and especially within Schedule 2, there is a very wide diversity in the sizes of institutions, their functions, their attainments and their clienteles. Furthermore some institutions in both the TAFE and university sectors offer advanced education programmes, and this will increase. While the schedules are sharp and clear, the real sectoral boundaries are not.

Australia did not invent the binary or sectoral structure of tertiary education, nor are we the only users of one. North America has community colleges and bachelor's-level colleges as well as universities and institutes of technology. The French have their Grandes Ecoles distinct from universities and other educational institutions. Germany, Japan, the Soviet Union and of course the British have each a range of sectors to provide the various forms of tertiary education required in the society. The point is worth making because the public debate in this country sometimes seems to suggest that there are not or ought not be differences of function and funding between sectors of tertiary education; yet most, perhaps all developed countries have found that there are and there ought to be such differences to prepare the vast range of skills needed in a modern society; and they fund the sectors at different levels for the different functions.

The advanced education sector came into being as an identified sector in Australia for two main reasons: to provide a high level of education in many vocational and applied fields that were not thought practicable or appropriate for universities; and to provide higher education for large numbers of students at less than university provision for them would cost. The second reason was not much trumpeted at the time or since, but it was there and still is (Gallagher 1982 pp 183-202). These are legitimate objectives in designing a nation's higher education system, but some enduring elements of instability were introduced in their implementation - especially after the teachers' colleges were incorporated into the sector.

INSTABILITY

Some instability in the system arises from the diversity of the Advanced Education sector. It comprises large metropolitan institutes of technology; small regional teachers' colleges which have widened their range of offerings; small and highly specialized colleges of agriculture, pharmacy or health sciences; medium to large amalgams of former teachers' colleges; advanced education institutes within universities. The

diversity has led to the formation of sub-groups with clearer common interests: the Central Institutes of Technology, the Association of Regional Colleges, the Agricultural Education Group. A number of staff feel a sense of anomaly or grievance at being regarded all as members of one sector despite the disparities.

Another element of instability is in their perceived mission. They are said to be primarily teaching institutions concerned with applied and professional studies. However - much as individual academics might prefer to ignore it - in their levels of funding, in the organization of their year by terms or semesters, in their administration and importantly in the public perception, universities are also primarily teaching institutions. As for the 'applied/theoretical' dichotomy, there is not much more applied than a university course in dentistry or medicine, while courses in Modern Writing, Australian Studies or Sociology of Education are as likely to be found in one sector as another. The distinction of mission between sectors was never very clear because on the basis chosen ('applied/theoretical' and primarily teaching) it cannot be made.

This confusion has been compounded by the staffing of the CAEs. As the sector expanded and recruited staff, it recruited heavily from amongst university staff and higher-degree graduates. It is hard to see what else it could have done. People who are highly successful in careers in industry and the professions - people of the calibre a CAE would want - are presumably mostly pleased with the path they have already chosen. People who want an academic career are likely to be found already in or approaching an academic career. This is not to deny that many academics in advanced education have had a lot of successful experience in other careers; so have many university medicos, lawyers, engineers, political scientists. The point is simply that in most fields of study the backgrounds of academics in the two sectors are very similar and hence so are their values and their approaches, including the frequent university argument that research activity is essential to stimulate and infuse the best teaching.

All these are elements of instability which were in the Australian binary structure from the start. If each sector had been more homogeneous; if a clear and valid distinction of missions could have been made; if a radically different staff could have been recruited (as for instance TAFE trades teachers are radically different from primary or high school teachers) - then the structure might be more stable and less prone to constant questioning. That is water under the bridge. We have got a structure, and we have got the questioning.

POINTS AT ISSUE

There seem to be four points at issue: status; research; postgraduate studies; and funding levels. They are all interrelated in obvious ways but it is easy enough to treat them individually.

The question of status has some apparently trivial aspects, but it is a serious issue. The term 'advanced education' seems in retrospect to have been an unfortunate choice; indeed many thought it so when it was coined. It has little or no currency, in the Australian sense, outside Australia. It is not intrinsically clear: 'advanced' in comparison to what? The title 'college' is no less confusing. It is commonly used in secondary education, and is clearly tertiary only when specified as 'teachers' college', 'military college', 'college of pharmacy' and so on. It is small wonder that CAEs have in large measure renounced the

terminology to become 'institutes' of technology or higher or advanced education. This might seem trivial, but it has coloured the initial perception of the sector by the public and presumably by those working in it.

A more intrinsically serious matter of status is the accreditation of courses. One does not meet many advanced education staff who object to accreditation in principle. They value the discipline it provides, the constructive critique it produces, the assurance of the course's appropriateness to meet the needs of the labour market, and the contact with the relevant profession arising from the process. Their objections are two: the very considerable administrative effort and expense of the operation, but especially the fact that it is imposed on this sector but not on the universities. Their sense of grievance is easy to understand and hard to answer.

Differences of status are perceived also in the differential academic salary structures, and in the use of titles, with 'professor' generally reserved for university appointments. One might say these differences are trivial, but they are burrs under the saddle.

The status issue is not helped by the arrogance or ignorance of some university academics and the complacency in that sector about its advantage in the present operation of the binary system. One does not have to be an opponent of all sectoral structures to realize that there is room for improvement in the present one and that 'Damn you, Jack, I'm all right' is not a wise attitude in a sector which at present needs all the friends it can get.

The sharpest functional dividing line between universities and advanced education is that universities have a mission to undertake research and are funded to do so whereas CAEs might have the mission but do not receive such funding; under the States Grants Act their Commonwealth funds are received for approved activities which do not include research. Of course the actual situation is not nearly so clear cut. All university academics are expected to pursue research, and the majority constantly do; a sizeable minority do intermittently when they are not prevented by heavy loads of teaching, administration or secondment; and a small minority appear seldom or never to engage in it. Conversely while research is not usually an official duty of advanced education academics a large number of them do engage in it, partly because they have the same academic training and values and intellectual interests as university staff, partly as a path to promotion and personal or institutional reputation, partly as a contribution to the general good of society. They are officially encouraged to take part in consultancies and developmental work for industrial, commercial and public service bodies, with these bodies carrying the costs of the projects.

A related issue is that of the capacity to enrol research students. While CAEs have in total a large enrolment of postgraduate students, the vast majority are in graduate diploma courses. The number of masters' degree students is strictly limited (in 1985, 2054 enrolments; 525 commencements) as at present PhDs cannot be offered in a CAEs own right but only in collaboration with a university. Last year I carried out a study of Masters' programmes in advanced education and some interesting details emerged:

- Despite the stringent limits on the number of students allowed, only a few of the biggest institutions indicated any substantial unmet demand.

. Contrary to the expectations of the CTEC, the biggest category of Masters' programmes is by research and thesis only (115, compared to 19 coursework only and 58 coursework plus thesis).

. Even so, it is clear from student and staff responses to the survey that the programmes are very applied and oriented towards employment, clearly different in nature and topic from programmes in universities.

. The programmes are often unique either in Australia or at least within their State in topic and content or mode (part-time or external availability).

One striking feature of the responses from academic staff was that Masters' students were not generally seen as a resource and support for the academic's own research. This is quite different from the attitude to graduate students in the university sector, especially in science-based areas. The explanation is that the advanced education academic has less opportunity to build a 'research team' both because of less scope for research in the CAEs and because over 70% of the students are part-time and choose topics related to their employment rather than their supervisor's immediate interest.

A number of academics in advanced education see their exclusion from the PhD supervisory role, unless under the tutelage of a university, as a reflection on their professional standing and as possibly denying the nation the opportunity of advanced training in important research fields in which a particular advanced education group might have unique expertise. However, to accept doctoral work generally in the advanced education sector would require commitments of time (hence salaries), space, equipment and materials for which funds at present are not available.

Funding is the nexus where all these issues come together. Institutions on Schedule 1 (that is, the nineteen universities which existed before WAIT changed its name) are expected to perform research, are free to enrol graduate students in all fields, and appear to be of higher status than CAEs if we are to judge by the pressures in Western Sydney, the Gosford region, Mackay and elsewhere for a university and nothing but a university. The nexus is that Schedule 1 institutions have been funded at a higher level per student than Schedule 2 institutions in the same field of study, to cover the additional costs of research and postgraduate education. It is not surprising if institutions move heaven, earth and governments in attempts to transfer from Schedule 2 to Schedule 1.

TRENDS

That has been the landscape of the binary system until now; but there has been a lot of subterranean movement in the last few years which will change that landscape where it has not changed already.

- Higher education programmes are increasingly being offered in TAFE colleges, and new creatures called Institutes of Tertiary Education (comprising elements of all three sectors) are coming into being.

- Since 1985 the increase in enrolments in both sectors has been funded to meet undergraduate costs only, so that the universities' financial advantage has been to some degree eroded.

- New taxation arrangements allow industry to claim 150% tax deduction for expenditure on research and development; this should stimulate companies to contract with higher education institutions for research and development. The more applied emphasis of advanced education should give that sector an advantage here, where the full costs of the research can be covered from the funding body.

- There is a growing emphasis on distributing research funds according to two strategic principles: concentration of research effort in fields and institutions, and supporting proven performance and potential. This strategy finds recent expression and endorsement in the Review of Efficiency and Effectiveness in Higher Education paras 4.95-4.111, where institutions are urged to manage their resources accordingly.

- Parallel to this universities are urged 'to reduce the range and number of disciplines in which they offer higher degree courses, particularly at the PhD level' to achieve greater concentration of resources (REEHE paras 6.57-6.66).

The outcome of these changes should be more opportunities and more support for some but less support spread across the board. When one combines that funding strategy with a blurring of the distinctions between the functions of the two sectors - and with the reality that no large increase in funds is likely to come - the shape of the new landscape begins to appear: not a succession of rolling hills but an alternation of plains and mountains (in Western Australia I think of the Porongorup and Stirling Ranges!). How institutions fit into that landscape might be more a matter of their performance than of their sector or their place on a schedule.

This approach is virtually taken for granted within the educational and funding bureaucracies; but this Conference might like to consider its possible consequences. If you fund on performance, how does a newcomer get established? How does an institution raise its performance to the point where it attracts its funding reward? Is there not a danger - as happens in some countries where research funding is tightly controlled - that 'proposals' will be put forward which have in fact been carried out, with assured positive results, and the funding granted to 'complete' them is in fact applied to new research? We should not underestimate each other's ingenuity.

ACADEMIC TASKS

It is possible to distinguish five academic tasks for higher education institutions. One is postgraduate education of a highly academic kind - the preparation of professional researchers. One is postgraduate education of a highly applied or vocational kind - the preparation of high ability in commercial, industrial and administrative development. One is vocational undergraduate education, another is highly academic undergraduate education of the kind typified by university honours-level work, and the fifth is undergraduate general education in humanities, sciences and social sciences, without either extreme academicism or direct vocational applications.

This is not a hierarchy. All of these jobs need to be done in a modern society and they all need to be done well. They don't all need to be done by any one institution, and in the light of a general strategy of performance-based funding each institution might well consider on which role or combination it wishes to concentrate and excel. It ought to

consider realistically what activity is within its capacities, while the funding authorities will in addition consider records of past performance, signs of promise and national priorities.

UNDERGRADUATE TEACHING

The debate over the binary system has been focussed so intensely on research that people have tended to overlook one obvious fact: the overriding national priority is the teaching of undergraduates. It is not simply that in every single institution except the ANU's Research Schools this is where most of the money and time is spent. Over and above that fact are the behaviour and the explicit statements of government. The increased funding of higher education over the last few years has been almost entirely to provide new undergraduate places. Apart from a modest increase in ARGS funds almost nothing has been provided specifically, and very little incidentally, to increase support for research.

The Government's Guidelines for the 1985-87 Triennium (July 1984) are explicit: 'The Government therefore requests CTEC to give highest priority to proposals to increase participation of young people' (p 3). The supplementary Guidelines covering 1986 and 1987 promise increases in recurrent, equipment and capital grants - all to provide for increased enrolments, principally to give the immediate school leaver the best chance of employment secured by a tertiary qualification. The demography of higher education into the indefinite future shows rising populations from the school-leaver age-group (with a brief plateau in the 1993-95 triennium) through steadily rising participation rates. It is clearly unlikely that the government's - any government's - priorities will change from emphasizing provision for undergraduate places. The institutions which choose this as their primary mission and do it well and boast about it (public relations are important) may find that activity more fruitful than endlessly pursuing limited research funds. Read the newspapers! Insofar as educational issues become political, it is the provision of places, access for the sons and daughters of the voters and the quality of what they get - these are the political issues. I have never heard of a political party or a newspaper making much out of promises to treble research funding, though they do make mileage out of promises to direct (that is, limit) research.

It is quite surprising how the teaching function has been devalued in Australian higher education since the late 1960s. Many American institutions - Reed, Amherst, Oberlin, Williams and other such four-year colleges - have internationally famous reputations as institutions which provide general undergraduate education of outstanding quality without feeling the need to venture into research or postgraduate or vocational education at the institutional level. Individual scholars in them may be fine researchers, but it is not a duty. The principal work of Oxford and Cambridge, even now when they are strong at postgraduate level, is the excellent education of undergraduates; one might say the same of the Sorbonne. I do not know of any Australian institution which makes the same claim at all loudly; in my opinion a few could start building such a claim but they seem too embarrassed to try, as if educating undergraduates very well was a mean ambition.

This Conference might well spend some time discussing two issues raised here. Firstly, does it agree with the current priorities, to provide as many undergraduate places as possible rather than redressing deficiencies of buildings and equipment or increasing research funding? It would be worth knowing what this group thinks and how best the other side might be

persuaded. Secondly - regardless of funding priorities - how can Australian academic institutions be brought to esteem and promote the teaching function as well as they all agree it should be esteemed? We have talked about it for decades, but academics still know that publication is the high road to promotion.

Australian academics are very fond of the word 'research' and curiously wary of the word 'scholarship'. 'Research' has in practice become debased from meaning the discovery of previously unknown knowledge - a fairly rare and rigorous process - to meaning, at the debased minimum, the reading of a couple of books on the matter, a case study, or some interviews or questionnaires, which might more truly be described as well conducted and useful investigations. In the credits of popular weekly TV shows one reads the credits for the 'research' conducted for that week's show, and novelists fly to exotic locations to 'research' their novels. 'Scholarship' curiously (and I piously say 'Thank God') retains some real meaning, of strenuously staying up with the cutting edge of the subject (even if not getting out in front of the edge) and rigorously applying standards of evidence and judgement.

Any academic, in any sector, can do that, and should be proud to do it well, and should not feel the least loss of status in doing that. If their chief executives - Directors, Principals, Vice-Chancellors - would proclaim the value of this and would ensure that this scholarship flowed into inspiring teaching, and would then ensure that promotion for the good practitioners followed - as it can follow now for the mediocre 'researchers' - we might see a transformation of the public attitude to the funding of higher education. We tend to forget that most of those who are denying higher education the funds it needs - members of parliaments and senior bureaucrats - have experienced higher education and apparently were not inspired by the experience.

POSTGRADUATE EDUCATION

As noted above, postgraduate education can have two emphases - either highly academic and oriented to train professional researchers or applied and providing advanced practical training in technological, administrative or policy areas.

It is not likely that there will be much increase in support for the first kind. There is no general shortage of PhD graduates, though there might be in specific areas; there are numbers of PhDs working in administration in the public and private sectors in positions for which the doctorate and the research which led to it are not a particularly appropriate qualification. Unless higher education expands much more rapidly than anyone expects, there seems to be little case to expand enrolments in traditional PhD or research Masters programmes.

The other kind of higher education on the other hand could take considerable growth: that is, higher degrees to produce professional leaders rather than research academics. We see it in one field already - the MBA. Some of the M Ed programmes are very practically oriented, for instance those in administration or maths education or science education. There is scope for growth in this type of course, particularly those with technological or commercial focus. There is scope for growth at the doctoral level, but these would not be the research/thesis PhD inherited by Australia from Britain. The suggestion is not simply that coursework might be added on the American pattern; it is rather that the nature of the student's project should typically be different, involving the solution of an immediate practical problem of

considerable difficulty rather than the pursuit of equally difficult theoretical knowledge. For such a project coursework studies in relevant areas might be essential, but it is the project, not the coursework, which is the distinguishing feature.

Institutions, whether advanced education or university, which devised such programmes (and perhaps devised for them a title other than PhD) might well find that they do not need Commonwealth funding to offer them. After all the present restrictions relate only to use of Commonwealth educational funds. Programs of the kind suggested may well attract funds from the private sector or from State or non-educational Commonwealth agencies (eg Department of Primary Industry) so that institutions were independent of CTEC funding in this activity.

This Conference might well spend some time discussing in more detail the sorts of programme, and even the titles, which it thinks appropriate for doctoral-level work in advanced education. It is a field in which I have no experience, but there are people here who have it, and who might both see possibilities and warn of dangers.

PERFORMANCE-BASED FUNDING

There is no a priori reason why any of the five activities listed above - two kinds of postgraduate education and three kinds of undergraduate education - must be performed by one sector or another. It is likely that in future funds will be more and more directed to where they will probably get most results. The Chairman of the CTEC commonly refers to 'the runs on the board'. So where are the runs at the moment?

In vocational undergraduate education each sector has a big stake and a creditable performance. There are a few fields such as medicine and dentistry on one side, plastic arts or nurse education on the other, which are predominantly the preserve of one or other sector. Many fields are offered in both sectors and there is no suggestion that this should not be so.

The other two kinds of undergraduate education - the highly academic and the more general non-professional education - are often considered to be the preserve of universities in their Faculties of Arts and Science. This is by no means wholly true. A large number of the advanced education graduates in creative writing or plastic or performing arts are no more likely to earn their livings that way than are university graduates in philosophy or history as philosophers or historians. The academically highly able students will be found in university honours schools but they will also be found unstreamed in a wide range of courses in advanced education, while cut-off scores for admission to several advanced education courses are notably higher than to many university courses.

When it comes to 'runs on the board' at the undergraduate level each sector has its claims. For all that is said in the preceding para, the universities do carry most of the load of general education in humanities, science and social science. They are also the institutions to which the bulk of the best students in these non-vocational areas go. They have been doing this job for a very long time, they have the reputation and traditions and it is unlikely that colleges would wish or would be encouraged to rival them here.

On the other hand when it comes to numbers, the colleges win hands down: roughly 207 000 to 155 000 in 1986 (other than higher degrees). That disparity will grow. Advanced Education is already the bigger of the two sectors, and all the State triennial submissions and all the expectations suggest that it will grow substantially more than the universities in 1988-90. Here are its runs on the board: the numbers, the range of studies offered, the cost-effectiveness, the accessibility for students, the socio-economic profile of its student body which is less elitist, more egalitarian than the universities'. As an instrument to provide higher education for the bulk of those Australians who want it, Advanced Education has the edge. If the institutions do not keep trying to sidle away from the name, Australians may well soon regard 'going to college' (not 'university') as the progression to higher education. This can only enhance the public goodwill towards the sector, and hence its political clout.

The public rhetoric from the sector seems to ignore this advantage. The spokesmen (they are always men) fix on research and postgraduate education as their issues. It is a perilous strategy. This is where the universities have got the runs on the board. If there were no restrictions at all on the CAEs taking masters and doctoral students in their present programmes and research/thesis format, the evidence suggests that they would not have many more applicants; the universities' lead would last as far ahead as one can see. When it comes to the attraction of specific research funds the universities are far in front; the University of Newcastle, which is simply one middle-of-the-range Australian university, attracted more ARGS funds in the last round than the whole advanced education sector. If one compares the turnover of the institutions' research companies, again the universities lead by a wide margin. The universities themselves are being pressed to concentrate their research and postgraduate education more, and to reward only proven achievement or demonstrable promise. If that principle is applied across the two sectors, the lion's share of the resources will still go to the universities, as long as they keep on performing.

PRIORITIES

Is there any basis for challenging that approach? We all know that the funds available from government are not merely less than one would like but are not enough to overcome past deficiencies or to provide places for all the suitably qualified applicants. Suppose an extra $20m were made available: where should it be used? In providing several thousand more undergraduate places? In increasing student allowances? In refurbishing old or building new buildings? In replacing obsolete or unserviceable equipment? In redressing the deterioration in staff/student ratios? I suggest that in the eyes of government and the public at large the extension of research support whether in advanced education or universities is going to be well down on the list of priorities. However it could be argued that the essential question is: whether the <u>current</u> money applied to university research may not be better spent if the competition for it with CAEs were on an equivalent basis.

The discussion must come back to priorities. Limited funds must be deployed where they will have best effect, and that is likely to be where they have had best effect. The binary system may have originated in Australia in an ideology, and it may have been a flawed ideology; but by now patterns of performance and achievement have been built, and it seems only prudent to continue building on the demonstrated strengths.

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W(H)ITHER BINARY?

A Seminar on the Organization of Higher Education
in Australia for the 21st Century

SEMINAR PAPER

Session Five: Tuesday 17 March 3.20 - 4.45 pm

THE CONTROL OF HIGHER EDUCATION: BY WHOM AND FOR WHAT PURPOSE

Dr Donald W Watts
Vice-Chancellor, Curtin University of Technology

THE CONTROL OF HIGHER EDUCATION: BY WHOM AND FOR WHAT PURPOSE

In 1979 Dr Wal Neal[1], an outstanding educational administrator and Western Australian with wide experiences in Canada and Australia, wrote an article in Vestes entitled 'Federal Intervention in Australian Education: Past, Present and Future'. He pointed to an earlier paper by Dr Ron Parry who drew attention to the coercive Federalism period introduced by Prime Minister Whitlam at the 1973 Premiers' Conference, and quoted Professor Russell Matthews' definition of that as a system 'marked by centralism of power, unequal bargaining strength and distortion of priorities at lower levels of government'.

The Liberal and National Country Parties in September 1975 expressed fine sentiments about grants made under Section 96 of the Constitution, stating that 'money for such programmes could be transferred to general purpose revenue reimbursements and ultimately absorbed in the States' income tax revenue'. They also stated:

> 'Indeed, Section 96 will be used as it was originally intended it would be used, namely to make grants to the States for special purposes and not to make inroads into the constitutional responsibilities of the States'.

Recent developments reveal, as Wal Neal feared at that time, a further centralization of power during the life of the Fraser government either as a matter of policy or in the absence of it, in which case through the influence of a Canberra bureaucracy interested of necessity, in defending its own actions or those of the government. Dr Neal emphasized the growth of the Commonwealth education bureaucracy in the years leading up to 1979 which were characterized by:

- 'The gradual development of bureaucratic machinery and complicated procedures for obtaining approvals.
- The tendency to delay proposals which are somewhat different from normal, either by just losing it in the machinery or in the case of course proposals by delaying a decision until a policy for Australia has been developed.
- A tendency to apply blanket policies to Australia as a whole without regard to the particular circumstances of States or situations within States.
- The increasing power of permanent officers and the involvement of specialists, say, from the Department of Finance in the procedures; and
- The readiness to impose demands for information and decision making requiring rapid responses in contrast to the delay in responding to State proposals.'

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(1) W D Neal, Vestes, 22, 15(1979)

Dr Neal criticized the accountability of the system of higher education in which the responsibility was so confused that institutions were left in limbo. He finally drew attention to the rash of formal enquiries at that time which have continued and are now reaching epidemic proportions. If these enquiries continue to be necessary then they simply provide compelling evidence about the inadequacy of the present Commonwealth and States' procedures and relationships.
As we look back from the year 1987 we can look upon the times described by Wal Neal as the good old days. Then, it was only six years since the Whitlam government produced the unmanageable separation of Constitutional and funding responsibilities - the former in the hands of the States and the latter with the Commonwealth.

The drift towards Commonwealth control and interference continues and, for the institutions, the confusion and doubt continues as an increasing number of Commonwealth bureaucracies become involved. Today decisions which affect the management of universities and colleges involve the Commonwealth departments of Education, Health, Immigration, Trade, Finance, Foreign Affairs, peripheral areas like Agriculture and Mining and Energy, in addition to the Commonwealth Tertiary Education Commission (CTEC) and its emasculated Councils, a collection of State bodies with similar responsibilities and, of course, the Australian Education Council.

Any detailed analysis of the present structures of public education in Australia and the mechanisms by which public funds are applied to private education in the school systems shows that such structures have evolved from a series of compromises. These compromises sometimes followed the emergence of community-based pressures but occurred mainly as a result of political ideology applied in counteractive processes by alternative socialist and conservative governments at both Commonwealth and State levels. The only constant trend has been to concentrate power in the hands of the Commonwealth. The trend towards central power and philosophical control has done little towards any achievement of national social or economic objectives through education and has proved devastating to the processes of meeting individual needs and to local sensitivity.

Certainly the constitutional ideals expressed at federation which placed the responsibility for education with the States have now been compromised by use of the power of the money provided by the Commonwealth and restrictions placed on the use of these funds.

It is difficult to support further centralization of control. The political realities are that, except for the occasional erratic move to accommodate a fashionable educational trend or to meet an element of political dogma, Commonwealth decisions, based on a per capital distribution of funds, are leading more and more to a stifling of any initiative to be different. The States guarantee this process which leads to uniform mediocrity and a national boredom in education by striving to re-establish the average for themselves on any occasion that some advantage accrues to another State. In such a system all States receive the average of New South Wales and Victoria, the most populous States, no matter how inappropriate these decisions are for the other States.

In higher education the managed system has grown larger through centralization and through the gradual diminution of management authority both in the States and the institutions. Gradually the freedom of

elements of the whole (States or institutions) to innovate and to evaluate the benefits of change on behalf of other States and institutions has been replaced by national mediocrity achieved in the name of equity. The system has lost its ability to experiment and the only evident evolution is toward lower morale accompanied by stagnation.

The Commonwealth bureaucracy, frustrated with the impossible problems of creating change to which all States could be committed, has opted for the continuation of the present system simply because it exists. If it were not for the fallacious belief that a single unified system has value the Commonwealth would devolve responsibility to States to establish their own systems, matched to the needs of each State as perceived by the State.

In no area of management in higher education is the Commonwealth more out of step than in its inflexible adherence to the existing limitations of the binary system. Indeed the Commonwealth education bureaucracy is not only out of step with the opinions of a majority of States but also with a majority of institutions and with the Commonwealth Departments of Technology, Industry and Commerce and of Science. Changes previously accepted as part of natural evolution in New South Wales and Victoria, such as the creation of the University of New South Wales and Deakin University, are inflexibly denied Curtin University of Technology at a time when change is necessary to meet the educational needs of Western Australia.

There are compelling reasons to return to a more decentralized system. The practical difficulties of changing the Australian Constitution are so forbidding that a return of the management of education to the States is justified if only to provide a system loyal to the federal system and its ideals. Sensitive and accountable management demand that policy control is not too removed from the point of delivery of the service. The inappropriateness of many Commonwealth decisions in education over the last two decades indicates the problems which derive when policy is established at a level too remote from the point of delivery.

There are valid arguments for some national coordination. The international understanding of Australian education and the difficulties faced by students transferring between States are concerns which lead to arguments for regulation of education. Indeed, some system is needed even if the only purpose is to audit expenditure. There must be a system of accountability in the expenditure of all public funds. In higher education a structure must exist in each State to assist in the coordination of institutions and in planning their distribution and their enrolment growth. As it was declared at a conference on higher education held in 1980, 'All in all, if institutions are to use their resources well and thus demonstrate real accountability, the emphasis must shift from 'empires' to 'education'[2].

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(2) Terry Hore, Peter R Chippendale and Leo H T West Ed, A New Era for Tertiary Education, Proceedings of a Conference held August 21-24 1980, Darling Downs Institute of Advanced Education, Toowoomba, 1981, p.232.

However, regulation is not only stifling to individuals and institutions, it is a costly activity. It is encouraging to see the Commonwealth Department of Industry and Commerce establishing a Business Regulation Review Unit, the role of which is to carry out a cost benefit analysis on Government regulation of private business. The Australian public systems in both education and health would benefit from a cost benefit review of the excessive regulation in both these areas of public business. It is also encouraging to see the Economic Planning and Advisory Council (EPAC) advising Government that public enterprise, in order to be efficient, must retain elements of competition. EPAC warns that public monopolies are no more acceptable than private ones, a thesis which must be applied to higher education where the public system is now national and monopolistic.

Any change which would remove the Commonwealth from education policy demands a reconsideration of the tax sharing agreements between the States and the Federal government or even a return to State income taxing for certain State purposes. The second alternative demanding a total review of the income tax system in Australia is attractive but was rejected previously by the States in the early 1950's. Such a move would not necessitate a multiplication of collecting agencies. However, it would allow the taxpayer to identify the collection with service thus making government more accountable. The present system by which money is collected and then distributed into public facilities and services is so complex that one could be excused for thinking that governments have erected the maze to eliminate the possibility of them being held publicly accountable for the efficient use of public funds.

A return of education policy and funding responsibility to the States would demand further evaluation of youth support systems in Australia. The costs of public education involve capital expenditure on buildings and equipment, recurrent expenses on staff and overheads and the cost of living of students from less privileged family backgrounds or who have established independence from their family. Independent decisions by States on participation rates would of course have an impact on Commonwealth commitments to youth support if these responsibilities were to remain with the Commonwealth.

Similarly, Commonwealth concerns in policy areas which determine participation of special groups such as Aborigines and women could emerge as problems if participation levels become a matter for State decision.

It must be recognized that some of these ideas are beyond the scope of the limited objectives of this conference and in practical terms beyond the vision of our Commonwealth Government at this time despite its enlightened policies in many other areas of fiscal responsibility. Thus although I favour a return of the responsibilities for higher education to the States I will concentrate here on other failures of the existing system and some options for change.

The binary system which separates higher education into the college and university sectors has ceased to play a useful role in meeting national objectives and has distorted the shape of higher education in some States. From the beginning the philosophy of the binary classification was seen as a vertical separation. The colleges were to aim to be equal to but different from the universities in their professional standards through providing courses based on a more applied emphasis. The universities were to relate their courses to objectives which would maintain a postgraduate and research activity aimed at securing Australia's fundamental research base.

The realization that many colleges, particularly the institutes of technology, and in this State the predecessor to my own university, the Western Australian Institute of Technology, represented a human and physical investment committed to applied learning and with an understanding of industry's needs, has led to the emergence of these institutions as places of valuable applied research. This has occurred without a commitment of government recurrent funding and in a competitive environment which made the system highly accountable for its research expenditures.

Many in the universities still feel threatened by the intrusion of some colleges into the universities' domain of research. Some of these people go so far as to vigorously deny the right of colleges to develop a research role and criticize applied research as a vehicle for research training. They cling strongly to an outworn perception of a role for colleges in which research and postgraduate activity are forbidden. This may have been the case two decades ago. At that time the need for expanded applied research was not foreseen and the universities were establishing their own research roles, while the colleges were correctly preoccupied with developing their roles as undergraduate institutions. Unfortunately, it appears that this position of limited vision continues to be endorsed by the Canberra education bureaucracy as the continuing destiny of the system and its institutions.

In fairness to the CTEC, the decision to deny research funds to the institutes of technology and some other colleges worthy of support has been taken partly on financial grounds, which recognize the lack of government commitment to increase education funding, a need for increased undergraduate opportunities and the inadequacy of the existing investment in university research. It must also be stated that in the last triennium the CTEC Report to government contained a recommendation on the provision of research funds to the central institutes of technology based on a formula aimed at matching government funds to industry's contributions. From my viewpoint there was no evidence that the CTEC fought sufficiently hard to get this recommendation backed by Cabinet. Certainly recent statements by the Departments of Industry, Technology and Commerce and of Science suggest that they would have been responsive to any serious attempts by the CTEC to introduce this initiative.

Australia's need for applied technological research, and its need to use every element of its research capability in the form of both human and physical investment in meeting new economic objectives demand a re-evaluation of the binary system.

It is time to recognize that there are nineteen universities of the older pattern, one technological university (Curtin University of Technology formerly the Western Australian Institute of Technology) and about forty colleges, including a handful of institutes of technology. Combined, these institutions constitute an appropriately heterogeneous sector of higher education.

These institutions should be funded to carry out the functions demanded by the community they serve and appropriate to the investment embodied in the institutions in terms of staff, plant and buildings, and not be limited by the anachronisms of the aging binary system.

In 1986, the Australian Committee of Directors and Principals of Colleges of Advanced Education (ACDP) agreed upon a statement entitled 'Higher Education - A Single Diverse System'. The preparation of that important document demanded understanding, compromise and courage from the heads of the forty colleges in Australia. It is an honest description of the diversity of the college sector and a challenge to government to recognize the value of this diversity and the need to include the universities, each with its own mission, in a single collection of higher education institutions embracing both the universities and the colleges.

Within this report it is stated:

> 'Not only are the real roles and missions of some colleges spreading, through evolution of function and practice, into those of the universities, and a whole range of Commonwealth and State decisions reinforcing the perception that alleged sectoral differences have no reality, but coordinating authorities are adding to the blurring process. There is now broad acknowledgement that selected colleges are rightly involved in areas of research that they are best able to undertake for the good of Australia, and a growing acceptance that some colleges should offer their own PhD programmes.
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> Abolition of the binary system would require, essentially, an acceptance that institutions of Higher Education, whatever title they may carry are individually distinctive and do differ in size, diversity, role, location, tradition and status. Each would be expected and have its own particular mission - that could change over time - based on the services it could best render to society. The resources granted would be related to the agreed mission as well as to size, course mix, levels of award and research infrastructure needed.
>
> The TAFE sector, being funded chiefly by the respective States, would remain a separate sector of tertiary education presumably with a TAFE Council continuing to advise CTEC and with State TAFE authorities to coordinate and plan TAFE development within the various States.
>
> Nevertheless, the Higher Education sector still embracing the full range of awards (Associate Diplomas, Diplomas, Bachelor Degrees, Graduate Diplomas, and Higher Degrees) would be expected and required to interface effectively with TAFE. The creation of a single Higher Education sector would retain, and even enhance, the capacity for TAFE awards to be accorded more effective and appropriate credits towards all kinds of Higher Education awards, and the development of two tier courses could evolve in cases where this is educationally and economically desirable. There would also be improved potential to use isolated TAFE colleges in remote locations to offer Higher Education course opportunities by contractual agreements and inter-sectoral cooperation.'

This thought provoking statement produced an uncompromising response from the CTEC. The response ignored the content and its relevance to the accountability of higher education in Australia. In a climate in which the CTEC is concerned about effectiveness and efficiency one might have thought that to challenge a diversity of institutions to define their mission and to explain their objectives and strategies, would have been the first step in establishing proper accountability, and certainly the correct base on which to establish funding.

The inability of the Commonwealth bureaucratic system to recognize the inappropriateness of the two box system of higher education or the three box system of tertiary education has limited the diversity of higher education and produced the bureaucrats' major concern, the drive for institutions to claim a place in another box. The removal of the boxes will free the successful universities from some of the restrictions which are driving all universities to the same state of mediocrity and will remove arbitrary barriers which inhibit some colleges from playing roles which are obviously appropriate and for which there is proven demand. The regulation of the binary system is expensive to administer. Its only achievement in recent history has been to direct resources away from the college student to the benefit of university students. So much for the founding philosophy of 'equal but different'.

The inflexibilities shown by the CTEC and government in the discussion of the binary system contrast with statements made by the Minister for Education, Senator Susan Ryan, at Nepean College of Advanced Education on 6 November 1986, 'By erecting artificial and unnecessary barriers between institutions, and by trying to establish a hierarchy between sectors, so much that is important to education is lost.'

Recently the Chairman of the CTEC has defended the CTEC by pointing to the low cost of its operations compared with the money it distributes. However the direct expenditure within CTEC is a small fraction of the cost of Commonwealth involvement in higher education. Those of us interested in change in higher education in Australia are only too aware of the intrusion of Departments such as Finance, Treasury, Trade, Immigration, Foreign Affairs, Health and Agriculture, to name but a few, in addition to the Department of Education itself. To the direct cost of these Departments and the inefficiencies derived from interdepartmental disputes should be added the real cost of State and institutional uncertainty.

One of the many problems of Australian tertiary education has been the inability of the Commonwealth Tertiary Education Commission, acting on State advice, to produce coherent planning which coordinates student numbers (that is, the recurrent cost provisions) and capital needs. A recent report by Coopers and Lybrand, W.D. Scott[3] has confirmed claims of unacceptable disparities between States and institutions, previously documented by institutions over many years.

Two conclusions which emerge from any consideration of the planning of capital and recurrent expenditure are that the responsibility for decisions in these two areas must be better coordinated and that a greater role for the institutions is necessary. There are strong reasons for devolving capital planning to the institutions by funding increased enrolments through a single per capita grant embodying a capital and recurrent component. The magnitude of both the recurrent and capital

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(3) Coopers & Lybrand W.D. Scott, Assessment of Teaching Facility Utilization in Australian Universities and Colleges, Final Report, Commonwealth Tertiary Education Commission, Canberra, March 1986.

component would vary according to the cost structures involved in each discipline. The institutions could then plan their own capital needs and fund them through borrowings, thus managing the integration of capital expenditure with enrolment growth. This approach to funding is valid whether the responsibility remains with the Commonwealth or is returned in part or wholly to the States.

None of this would produce difficulties for the institutions, many of which are currently facing similar planning exercises in their initiatives in the fee-paying overseas student market. The States have maintained statutory coordinating bodies or ministries with an overview in the planning of higher education despite the gradual assumption of control by the Commonwealth. Thus the States could assume the additional responsibility at minimum cost by an action that would remove the need for a substantial Commonwealth expenditure on system management in the form of its Tertiary Education Commission.
Not many institutions, particularly within the university sector, would find pleasure in an increase in the role of State coordinating bodies even if the corresponding Commonwealth body was to be attenuated. Indeed, the record of State bodies, even after allowance is made for the difficulties caused by the Commonwealth, does not lead to confidence in the future. The mode of operation of all these coordinating bodies is in need of a philosophical overhaul. The criticism of Commonwealth Bodies offered by Dr Wal Neal applies equally to State bodies.

I am intrigued by the language used to describe these bodies in the United Kingdom. They are often referred to as 'buffer-institutions'. A chemist such as myself finds interest in the analogy to 'buffer solutions' which are designed to resist the perturbations of both acids and bases, thus retaining the status quo.

An alternative explanation is that the bodies are designed to create a buffer between institutions and government or between the various institutions.

The first of these two alternative functions has no validity in that it is rendered redundant by the statutory role of Senates and Councils which safeguard the autonomy of institutions. The second role, that of standing between institutions in arbitration and bureaucratic control, is justified on the grounds of coordinated planning but is carried out in such a way that it alienates the institutions and more often than not increases tensions between institutions, thus diminishing the likelihood of coordinated and joint initiatives in the form of partnerships.

It would be foolish to diminish the difficulties associated with this role but at least in Western Australia, with a small number of institutions, it is difficult to justify the exclusion of institutional representatives or observers from the operations of the coordinating body. Representation of this type would make the secretariat more accountable in the provision of advice to the community members of the Commission. It is difficult to see how the community membership can do other than accept the advice of the full time secretariat unless those with alternative opinions are given properly constituted access. Once the community membership has accepted the advice of the secretariat the political reality is that they are committed to it irrespective of the nature of subsequent advice from elsewhere.

In the larger States this model would be inappropriate. However even in New South Wales and Victoria where size would preclude institutional representation, the proper accountability of the secretariat demands institutional access to policy proposals involving an institution.

While these structural difficulties bedevil Australian education there is a tendency in seeking change to concentrate one's attention on 'the system' instead of the social, political and philosophical vacuum that is slowly drawing the life from Australian higher education.

The evidence is strong that although Australia does appear to have a commitment to education, its delivery is flawed. On the one hand the central purpose of educating the person appears not to underpin the system; in fact, the system has become all important. As such it has, almost exclusively, functioned within its own sphere, having little impact on other major areas in the Australian scene.

It is difficult to show where Australia has used education as a deliberate part of national policy since the proposals of the Martin Committee were backed by the Menzies Government in 1965. Today, education is viewed too much as a part of social policy and is not related strongly enough to our strategic and economic policies. This contrasts with the GI Bill after World War II, and the Sputnik sparked education revolution from 1958-66 in the United States, and the recently planned 'modernization through education' programme in Singapore. For twenty years Australia has not looked to education as a major force in shaping national policy. In Australia, demand pull for graduates is more often a rationale for enrolment numbers than is graduate push a tool for changing either the culture or the nation's capacity to perform.

Bureaucratic immobility and the length of the pipeline of professional training will continue to deprive Australia of the labour force necessary to meet demands of international competition unless education is viewed as a dynamic factor in creating social change.

The Australian education system's reaction to technology reveals these flaws. The system continues to be reactive to technology itself and to the needs of the technological workplace. Yet at the national policy level, as expressed by both the Departments of Industry, Technology and Commerce and of Science, it is clear that Australia's future is directly linked to technological advancement. Initiatives at the institutional level are strangulated in the bureaucratic overlay while remoteness of the central control from the point of delivery makes centrally initiated change impossible, even in the unlikely event that a clear direction could be determined. In this climate education is considered more as a social service than a vital resource; a neutral servant more than an active agent of change.

Higher education has as its major purpose the provision to individuals of the opportunity to realize intellectual and creative potential through formal learning. A system is necessary to encourage institutions to provide a rational diverse service so that the sum of their offerings matches national needs and to produce equal opportunity of access to all regardless of disadvantage caused by geography, economic circumstances, race, sex and disability.

The two fundamental responsibilities of the higher education system are to serve individuals in achieving their many and varied educational and

career objectives and to serve institutions by fostering institutional differences which in their sum meet national needs. Yet institutions can only meet national needs if they are allowed the freedom to change of their own initiative in order to meet emerging community needs.

In contrast, central bureaucratic procedures are increasingly driving education in the other direction to a system embodying a few sets of average institutions producing less imaginative and distinctly ordinary graduates. Australia needs innovative, entrepreneurial professional graduates. It is difficult to see this spirit of risk taking emerging in the graduates of institutions denied the spirit of adventure by bureaucratic control. What have we done to the excitement of education?

There are two countermanding forces in the management of large systems. Systems that commence with central power can devolve management responsibilities in the interest of effective, efficient and accountable control. Alternatively, large systems can be generated from independent parts by the establishment of cooperatives and consortia given those degrees of statutory standing necessary to achieve corporate effectiveness and efficiency.

The present system was succinctly described by Dr Tony Gallagher(4) when he stated, 'The Australian Universities' Commission (and the CTEC) increasingly served the Commonwealth Government rather than the universities or State Governments and thereby facilitated a growing Commonwealth role.'

The following determine the options for a new system designed to meet the needs of Australian students:

(a) Institutions are established under State Acts which infer freedoms long associated with institutions of higher education. No government would be prepared significantly to diminish these traditional freedoms and rights of the institutions.

(b) The aims of the Australian federal system can be and have been distorted by Commonwealth financial controls. The problems of this method of establishing central control are well documented.

(c) The responsibility for the delivery of the service and its management rests with the institutions. The institutions are accountable for the quality and efficiency of all that is education. The more remote from this point of responsibility is the centre of coordination, the greater is the loss of accountability.

(d) Only the institutions have a sensitivity to their students and their individual characteristics and only the institutions have access to directly communicated opinions of schools, parents, and employers in the region served by the institutions.

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(4) A.P. Gallagher, Coordinating Australian University Development, A study of the Australian Universities Commission 1959-70, Queensland University Press 1982.

(e) Regulation within any market is expensive and in the education system denies institutions and individuals their self-determination. Regulation also increases response times within the system and because of the inevitable intrusion of politics can deny the existence of a market and infer values neither evident in the market nor valuable to the nation. Regulation had direct costs in monitoring and control systems and in the demands placed on individual institutions. It produces inefficiencies by encouraging protected diversification when the market would naturally lead to competitive advantage through concentration and improved performance.

(f) In regulated systems institutions are denied the freedoms to be innovative in creating change, a process in which risk is inevitable. Experimentation is a prerequisite to improvement, it involves risk, continuing evaluation and decisions to extend favourable initiatives and to terminate the unproductive. Controls remote from the point of delivery and close to the point of political control reject risk and build in mistakes which in the end become part of the continuing inefficiency of the system.

(g) The concentration of power through funding in the hands of the Commonwealth has led to increased regulation of the labour market for academic staff and a concentration of union power. No flexibilities remain which allow an adequate reward for merit, termination of the incompetent, recognition of professional employment market forces and their regional dependence.

In view of these realities and the principles enunciated earlier I put to you the thesis that the only favourable scenarios for higher education in Australia will follow initiatives aimed at:

(a) The return of the total responsibility for higher education to the States and the establishment in each State of a coordinating authority made accountable by direct institutional representation and community membership.

(b) A renegotiation of the tax-sharing arrangements between the States and the Commonwealth so that the States are able to at least maintain the total national investment in higher education.

(c) The termination of the life of the CTEC and the sections of the Commonwealth Department of Education with responsibilities for higher education. This change would lead to the transfer of Austudy to a Commonwealth agency responsible for youth support.

(d) The creation of a National Research Council within the Commonwealth Department of Science responsible for the proper funding of research beyond that of the basic infrastructure of teaching research which, following transfer from the Commonwealth, would be transferred to the States with the changes suggested in (a) and (b).

(e) A reintroduction of tuition fees at a level of 10-15% of recurrent costs. The fees and an accompanying scholarship and loan scheme will establish the private value of education, produce incentives and rewards, and make the student more accountable to the taxpayer who funds the system. The re-establishment of modest fees will create the opportunity for governments to shape education through incentives and scholarships instead of through ineffective and frustrating controls.

Such a system would work. The institutions would be accountable to their public and to government. One level of government, the States, would be accountable to the electorate for the system. The coordinating bodies would be partners with the institutions in creating the State systems. Those of us with major responsibility would again have fun in education instead of seeking our pleasures in minor achievements for our institutions, won in never-ending battles within a system more committed to its own survival than to education. It may even be possible for some to gain pleasure from others' achievements.

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W(H)ITHER BINARY?

A Seminar on the Organization of Higher Education
in Australia for the 21st Century

SEMINAR PAPER

Session Five: Tuesday 17 March 3.20 - 4.45 pm

THE BINARY SYSTEM AND ALTERNATIVE STRUCTURES: TWO NORTH AMERICAN MODELS

Professor Bob H T Smith
Vice-Chancellor, The University of Western Australia

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PREAMBLE

One response to the theme 'Options for Change' is provided by Barker (1986) in his reflections on possible future patterns for the Binary System. He noted that there might be a 'softly-defined' binary system in which all institutions have 'agreed and complementary missions that are not constrained by title or sectoral membership and are funded differently according to their roles'. Second, the present 'hard-edged' binary system might prevail, with State-designated universities being located in the advanced education sector for the purposes of Commonwealth funding. He also noted the possibility of supplemental State funding for roles that go beyond those identified by the traditional binary system. Third, Barker envisaged the possibility of a fragmentation of higher education once again with various clusters: nationally-supported universities, state-supported universities, and institutions based on such characteristics as regionality or specific discipline focus. Of the three scenarios, Barker saw the third as the least desirable.

This framework provides a useful background to the following discussion of two North American models. The first, Canada and particularly British Columbia, involves a situation where three quite distinct components of post secondary education have evolved. While they are distinct in terms of mission and to a great extent funding, there is a substantial amount of interchange. The second example, the United States and particularly the State of Wisconsin, highlights a situation where legislation in the early 70's placed a large number of post secondary institutions under the one organizational rubric, to create a single University of Wisconsin system. An examination of some of the components of these two examples could well provide some insight into the situation with which we are faced in Australia.

THE BINARY SYSTEM AND ALTERNATIVE MODELS: TWO NORTH AMERICAN MODELS

CANADA AND BRITISH COLUMBIA

There are some obvious parallels between Canada and Australia, perhaps the simplest of which is the fact that each one comprises a vast land mass peopled very sparsely. This sparse population is spread predominantly along a border: in the case of Canada, mainly along the 49th parallel; in the case of Australia, along the eastern, south eastern and south western coastal littoral. Each country has a federal constitution, which recognizes state (in the case of Canada, provincial) responsibilities in a large number of areas. Public institutions predominate, and most if not all post secondary institutions exist in each country under state/provincial statutes. The exceptions in Australia are the Australian National University and the Canberra College of Advanced Education. While there are several Canadian universities that in function are national institutions, none exist under federal legislation. In both countries, substantial federal funds flow to post secondary education. And finally, in both there is a real concern with access to post secondary education, geographically and socially.

There are of course some marked differences. The first of these relates to funding. In Canada, substantial federal funds flow to post secondary education under the Established Programmes Financing (EPF) plan, originating in 1977. These funds are for medicare, hospital care and post secondary education. The federal government's perception of these three components is not shared by the provinces: thus, the province of British Columbia decreased grants to universities in each of 1984/85 and 1985/86 in absolute terms by 5%, at a time when the notional allocations to universities in these two years from the federal government increased by at least 6%. Comparable transfers in Australia take place under schedules attached to the States Grants Act, and the states have no discretion in the matter.

A second fiscal difference is that in Canada, tuition fees are levied in universities, colleges and institutes. In general, the discretion over fees is vested in the governing bodies of the institutions concerned, and they account in universities for between 10 and 16% of revenue available to universities. A third contrast is that there is not a body in Canada corresponding in function and mandate to the Commonwealth Tertiary Education Commission (CTEC). There are several ministers of state who have an interest in tertiary education, but there is no comparable federal statutory body. Most provinces have a ministry charged with responsibility for post secondary education, sometimes along with other portfolios. In some, there is a buffer body between government and the institutions. However, several of these have recently been disbanded, the most recent being the Universities Council of British Columbia. Finally, one does not hear in Canada reference to a national 'system' of universities or tertiary institutions. This term occurs frequently in much of the public dialogue about universities in Australia. This is not to say there are not elements of such a system in Canada.

Given these comparisons and contrasts, it is instructive to look at the structure of post secondary education in Canada. An examination of provincial systems of post secondary education suggests three different kinds of 'system' (Campbell, 1975): unitary, binary, and ternary. The

Province of Quebec is the only example of a unitary system; its Colleges d'Enseignment General et Professional, or CEGEP's, do not exist as a parallel alternative form of post secondary education. Rather, they operate as one of four levels within the provincial system: elementary, secondary, CEGEP and university. The second category of system applies in Manitoba, Ontario, and the Maritime Provinces. In these, there are different college and university systems. The colleges ofrer a very broad range of programmes with a decided community orientation. While there are some differences within the provinces (mainly between Manitoba on the one hand and Ontario and the Maritime Provinces on the other), provinces maintaining a binary system emphasize a clear philosophical division between the sectors. In Ontario, for example, the Colleges of Applied Arts and Technology do not offer transfer of credit opportunities to the universities; they are explicitly prevented from offering university type-courses.

The Provinces of British Columbia, Alberta and Saskatchewan are characterized by Cambell's 'ternary' system in which there are three broad and coordinated streams: the universities; the community colleges; and institutes of technology including agricultural colleges etc. Gregor (1979) suggests that the removal of the technical/technological task from the community colleges in these three Prairie provinces reduces their propensity to be non-university in character. Thus, they are much more easily aligned in aspects of their content and orientation to universities than is the case in the so called binary systems of Ontario, Manitoba and the Maritime Provinces.

THE PROVINCE OF BRITISH COLUMBIA

Within Canada, the Province of British Columbia offers a most interesting example of the provision of post secondary education. It includes three public universities, fifteen community colleges, three institutes, and an open learning authority. In addition, there is a fledgling private sector represented by a religiously-affiliated four year degree granting institution, and several private two-year community colleges. This is a substantial investment for a province of 2.2 million people.

a) Universities

Section 46 of the University Act (B.C., 1979) identifies the functions and duties of a university as follows:

'each University shall so far as and to the full extent which its resources from time to time permit,

a establish and maintain colleges, schools, institutes, faculties, departments, chairs and courses of instruction;

b provide instruction in all branches of knowledge;

c establish facilities for the pursuit of original research in all branches of knowledge;

d establish fellowships, scholarships....

e provide a programme of continuing education in all academic and cultural fields throughout the province;

f generally, promote and carry on the work of a university in all its branches, though cooperative effort of the board, senate and other constituent parts of the university'.

All of this is subject to section 12 of the Act which describes the composition and powers of the Universities Council (UCBC), a buffer body consisting of lay persons appointed by the government. The Universities Council was established with wide-ranging powers, relating largely to coordination and funding allocation. In particular, it was 'to act as an intermediary between the government of the province and the universities, and between the respective universities'. The Council remained in existence from 1974 to 1987. It was replaced early this year by an advisory council comprising university representatives and private sector volunteers. The Minister's press statement said that the new Council would provide for 'open, frank and constructive dialogue with a minimum of red tape.' (The portfolio under which universities are now placed is Advanced Education and Job Training!)

During its thirteen-year history, UCBC engaged largely in coordination expressed through three committees: programme coordinating, business affairs, and capital facilities. Each one involved university participation. It sought consensus amongst the three institutions on a funding formula in which respect it enjoyed a small measure of success. And finally, it developed in the late 70's a system of new programme funding: new programmes approved by the institutions and subsequently by the Council were funded 'off the top' of the annual grant, using 5% of the aggregate grant allocated at the discretion of the Council. With the dramatic change in funding in the early 1980's, this system simply broke down. The Council also attempted to institute a strategic planning process in the early 80's when the funding situation changed, but it had only a limited measure of success.

b) Colleges

The British Columbian community colleges were established in part as a result of a study by the then-President of The University of British Columbia, John B MacDonald, which examined access opportunities in the province (MacDonald, 1962). The colleges were established as local institutions, with a substantial community input to governing bodies via school board representation. Until 1983 there was a buffer body between the community colleges and the government. In that year the body was abolished and the colleges became subject to direct ministerial control.

The evolution of the College system can be seen in three stages. The fifteen year period from 1960 was characterized by autonomy, diversity and expansion. 'The consequences of an essentially decentralized policy towards the expansion of the college system was a rapid increase in enrolment and accelerated growth in programmes with little coordination and even less concern over possible duplication, and a growing belief in the new colleges as having the potential to become all things to all people.' (Dennison b, 2, 1986, 7-8).

The period from 1975-80 was characterized by consolidation and constraint. This was the period when the drain on the provincial treasury from the expanding college system was recognized. Expanding enrolments, increase in number of programmes, and collective agreements between the rapidly unionizing instructor organizations and their employers all established strong pressures on the fiscal base (Dennison b, 1986): 'The culmination of all of these factors was increasing pressure to control the costs of higher education and a determination by the provincial government to ensure that the fiscal brakes would be applied.'

The recent period from 1980 is characterized by restraint, retrenchment and control. There have been three distinct policy initiatives to reassert control by the provincial government. Firstly, integrated five year planning was introduced and there was a deliberate attempt to force attention to the ministry's planning future. Secondly, formula funding commenced and, by directing funds to particular programmes, emphasis in offerings was possible. And thirdly, the local school board component of the governing bodies was abolished, thus placing the control of the business affairs of the colleges in the hands of those appointed by the government. (Dennison, a, 1986).

Perhaps the most interesting feature of community colleges in British Columbia is that they were to facilitate credit transfer to universities. Their programmes encompassed three different streams: adult basic education (including secondary school make-up work), vocational-technical courses; and university transfer courses. The latter were not transferable to universities on an unrestricted basis, and some situations emerged of courses accepted by one university not being accepted by one or both of the others (Gregor, 1979, 45). The actual transfer arrangements were monitored by articulation committees consisting of discipline representatives from each of the institutions involved. There was an appeal mechanism but in the final analysis transfer arrangements were negotiated on a bi-lateral basis between the colleges and the universities. This is perhaps the most striking feature of the so-called ternary system of British Columbia.

c) Institutes

In addition to the Pacific Marine Training Institute, a technical institution with a specific mission, there were three such bodies: the Open Learning Institute which offered the three sectors similar to the colleges but included degree streams offered in a distance education mode; The British Columbia Institute of Technology which offered specialization in a number of technologies but significantly, did not offer degrees; and the Pacific Vocational Institute which, as it's name implies, bears a resemblance to TAFE. In 1985 the Pacific Vocational Institute was merged with the British Columbia Institute of Technology; in 1986, the Open Learning Institute merged with a larger body whose mandate is the delivery of open university courses. This was facilitated by a body created in 1979 known as the Knowledge Network of the West, a telecommunications authority designed to use satellite technology in the delivery of educational courses.

SUMMARY

The legislation establishing these different forms of post secondary institutions in British Columbia clearly recognize distinctive roles for each one. The colleges were seen as community orientated institutions with a clear responsibility in a number of areas to the local communities. They were not funded on the basis of their faculty engaging in research and indeed, the pool of instructors from which they recruited when established were neither equipped for nor encouraged to engage in research. In contrast, the University Act makes it clear that this is an important part of the mission of the Universities. The institutes, the third tier of the post secondary system, had clearly circumscribed roles. This system has little parallel in Australia except that the college and university sector both sought to provide access to degree-level courses, in the case of the colleges as one of several

responsibilities. The distinctive feature of the British Columbia situation is the commitment to credit transfer, something which has been brought into sharper focus in this State by the recent publication entitled Great Expectations (Bardsley and Gallagher, 1987).

THE USA, AND WISCONSIN

There are several points of similarity between Australia and the USA: the United States has a federal constitution and States have responsibility for education. Public tertiary institutions operate under State statutes. And finally, as in Australia, there is a genuine concern with access, expressed in the USA by a markedly higher participation rate than that which applies in Australia.

There are of course quite a few differences. There is a large private tertiary sector, comprising approximately half of the 3 200 tertiary institutions (this includes two year colleges as well as four year colleges and universities). Three-quarters of the enrolment is in public institutions, which are primarily State funded, with Federal funds flowing for particular programmes from a number of agencies. There is no Federal buffer body similar to CTEC and, as with Canada, there is no pretence at a national system. Finally, tuition fees are levied, typically much higher in the private sector than in the public sector.

Of the 3 200 institutions, 100 are research universities, 100 are doctoral universities,600 are comprehensive universities, 600 are liberal arts colleges, 1 200 are two year colleges, and 600 are institutions which do not fall comfortably into any one of these categories (Carnegie Council, 1981, 55-57).

THE POST SECONDARY SITUATION IN WISCONSIN

Wisconsin is one of the 50 States of the United States located in the middle west adjoining Lake Michigan. With approximately 6 million people it does not have a large industrial base, the largest city being Milwaukee, a Great Lakes port.

Prior to 1971, there were two university systems (Suchman, 1987). The first was the University of Wisconsin which comprised four campuses, ten two-year centres and an extension sector. It was governed by a ten member board of regents, nine of whom were appointed by the Governor for staggered nine-year terms with the Superintendent of Public Instruction a member ex officio. The second system, the Wisconsin State University system, comprised nine campuses and four two-year centres. This system originated from the teachers colleges, otherwise known as normal schools. It was responsible to a board of 14 regents, 13 of whom were appointed by the Governor for staggered five-year terms, with the Superintendent of Public Instruction a member ex officio. Superimposed over these two systems was a body which was responsible for the overall coordination of post secondary education in the State. In the late sixties, the perception had developed that this body was engaged more in coordination and less in management. This was a source of considerable dissatisfaction in the legislative and executive branches of government, and in 1971 a decision was made to merge the two systems under one board of regents. This board comprised 17 members, 14 appointed for staggered seven-year terms, a student for a two-year term, and two members ex officio.

Components of the Merged System

Wisconsin is a State with a long tradition of quality public education, which commenced with the establishment at Madison of the University of Wisconsin in 1848. This has been and remains the flagship institution, known for its array of programmes and its fiercely-defended tradition of academic freedom, most notably expressed by its refusal to permit Senator Joseph McCarthy to hold hearings on the campus in the late 1940's. Madison is one of the two doctoral universities, the other being the Milwaukee campus. The second component of the system comprises 11 regional comprehensive universities comprising the original nine State university campuses plus the two remaining campuses of the original University of Wisconsin system. The third component consists of the 13 two-year centres, which are primarily liberal arts transfer institutions. Finally, the extension division is engaged primarily in outreach and adult and continuing education activities. In 1986/87, there were 165 000 students enrolled across these four sets of institutions. There is provision for ongoing consultation between this system and the vocational, technical and adult education system.

The following comments made by the then-President of the system in 1981, describe some of the views of the role of the system:

> 'This system is still taking shape, and has yet to be fully formed. There are several possible views of its nature and role. Some see the system as a separate educational institution. That view seems to me mistaken; the system offers no degrees, gives no academic credits, has no faculty and no alumni. On the other hand, I find equally inaccurate the view that the system is simply a conduit through which papers pass from universities to State government and between institutions. The truth, in my view, lies between these two antitheses. The University system should be more than simply the sum of its parts, although the constituent institutions are of course its core and its reason for being. The system has a responsibility to shape and apply policies, enhance relations among institutions, facilitate contact between the institutions and State government, and represent to the citizens and the State the needs of higher education in Wisconsin. The system should make easier not more difficult, the tasks of the Chancellors and the institutions' (O'Neil, 1981, 9).
>
> 'The formation of this new system was accompanied by both hopes and fears. High expectations and deep anxieties predictably attended the birth of this new and greatly enlarged network of higher learning. The intervening years have allayed many of the anxieties; the once feared homogenization of Wisconsin higher education has not occurred and individual institutional identities had not been lost. At the same time, however, not all the hopes were realized. Some proponents of merger foresaw greater resources, new and better facilities, improved teaching and study conditions, and other developments to which merger (though not logically related) seemed to offer a possible catalyst' (O'Neil, 1981, 3).

Mission Statements

The legislation establishing this merged system recognized three kinds of missions: a system mission, a core mission, and select missions. The

system mission provided that the system as a whole be responsible for teaching, research, the provision of extended education, and public service. In particular, all institutions in the University of Wisconsin system have a responsibility to offer liberal education as a basis for undergraduate degrees.

Core Missions

The following quotation from Suchman (1987) identifies concisely the core missions of each of the four components:

> Doctoral Cluster (Madison and Milwaukee) - may offer Baccalaureate, Masters, Doctoral and Advanced Professional Degrees and engage in research.
>
> University Cluster (11 four-year institutions) - may offer Baccalaureate and selected graduate programmes (non-doctoral); should put first priority on teaching; should a) provide a base of liberal studies as a foundation for its degrees; b) engage in outreach and continuing education for citizens in each service region; and c) engage in scholarly activity integral to, and supportive of, instructional programmes and teaching excellence.
>
> Extension - to coordinate and to provide, jointly with campuses and centres, an outreach programme designed to lend the assistance of UW system resources to the needs and problems of the citizens of Wisconsin and the State, particularly the needs associated with economic development, equity and justice, health care delivery, environmental quality, intellectual and cultural development, communication processes and agriculture.
>
> UW Centres (13 two-year institutions) - may offer associate degrees; serve primarily as a liberal arts transfer institution; should put first priority on meeting the educational and personal needs of students; also should meet the off-campus instructional and continuing education needs of citizens in the campus service area and provide public service to the surrounding region within the context of coordinated state-wide planning' (Suchman, 1987, 55-6).

Select Missions

These statements are specific to each institution within each sector. They vary substantially, some being defined in terms of the client populations, some by the subject matter in which instruction is offered, and some in terms of educational approach. As noted previously, all institutions are obliged to offer liberal education programmes as a basis for their undergraduate degrees.

In 1986-87 the system had an operating budget of 1.6 billion dollars. The source of these funds was as follows: State, 38%; Federal, 15%; Student Fees 16%; receipts from income producing activities (dormitories, student centres, hospitals and continuing education programmes) 26%; and gifts and trust income, 5%. The regents set tuition fees under statute, but in fact this discretion is not independent of legislative and executive influence. Thus, if tuition revenue exceeds budget estimates, the legislature requires that the Joint Committee on Finance approve proposals to expend such revenues.

Comparable Funding for Comparable Programmes

This subject was addressed in the report of the Merger Implementation Study Committee (MISC, 1973). The report noted that the creation of a system of universities, centres, and extension grouped into four major organizational clusters had significant funding implications. Several guidelines were promulgated to clarify these implications. The first and second year programmes offered at the centres were to be of comparable scope and objectives to those on the 13 university campuses, and therefore should be funded at adequate and comparable levels of support. The report noted that 'adequate' and 'comparable' support did not necessarily mean the lowest common denominator or indeed the lowest existing unit cost. It was intended to mean an amount or range of support determined by the system administration to be adequate based on an assessment of the programme and its study of comparable data from other institutions.

It was noted that programmes at the third and fourth year level were likely to more clearly assume the mission character of the institution in which they are offered. Therefore it was accepted that support costs could and most likely would vary, especially between the doctoral campus clusters, if only because of the involvement of graduate/research faculty in these instructional programmes. The relevant policy statement went as follows:

> Within clusters (and, where clearly justifiable, between them), programmes of comparable scope, content and objectives should be funded at adequate, comparable levels. Unique programmes should be separately assessed to determine adequate support levels; data on comparable programmes outside Wisconsin should be used where available and verifiable' (MISC, Annex D, 6).

The masters, specialist and doctoral graduate programmes as well as a number of high cost professional programmes required special attention. It was noted that given their higher costs they required periodic review and re-evaluation and, while funding for programmes comparable in scope, content and objectives should be comparable and adequate, it was noted that as costs run higher on the doctoral campuses because of the wider range of offerings, then comparability must be assessed within the respective doctoral and non-doctoral clusters.

The lessons to be learned from this are first, the use of the notions of comparability, adequacy, difference and uniqueness; and second, that in the creation of the system, the unique character and mission of the various institutions was preserved.

The Future

In 1986, there was issued a planning document drawing on an evaluation of the University of Wisconsin system over the past fifteen years and laying out the needs for the future (Board of Regents, 1986). Several key policy initiatives are outlined in this document, perhaps the most important being related to freshman admission policy, mission, programme array, programme review, and undergraduate credit transfer. There were many other related to the entire spectrum of activities of the university system and particularly to aspects of the student body.

The document concluded with an assessment of its preparedness for the 21st Century and presented a series of alternatives for meeting the fiscal challenge for the future. These were expressed as three options:

meet an $88 million State funding shortfall; or reduce enrolment by 22 000 students; or finally, increase tuition fees by $640 annually (representing an increase of 36%). The same objective could be achieved by reducing enrolment by 11 000 students and increasing State funding by $44 million, thereby requiring no change in tuition levels. A third option would be to increase State funding by $48 million, and decrease enrolment by 6 000 students and permit a 6.6% ($16 million) tuition fee increase. Significantly, the report concludes with the following remark:

> 'All of these options and many more are possible. Prudence dictates acknowledgement that all must pay for quality - students, their parents, taxpayers and, thus, some combination of these factors will be required...determining the proper combination of these three factors is one of the most important policy decisions the State will be making in the years ahead' (Board of Regents, 1986, 24).

CONCLUSION

There are several conclusions one might reach from this overview. First, neither of the two examples provides a direct parallel with the existing binary system in Australia. The Canadian example of the so-called binary system (Manitoba, Ontario, and the Maritime Provinces) is similar in structure but not in mandate. The B.C. 'ternary' system has few structural similarities but in one respect, that of credit transfer between institutions in different sectors, B.C. has a record of achievement of which the Australian system could well be envious. Regardless of the outcome of the binary funding debate, this has to be an urgent priority area for Australian post secondary education. The United States generally (and Wisconsin in particular) likewise has few structural similarities to the current Australian situation. Again, the commitment to credit transfer between component parts of the University of Wisconsin system is substantial.

Second, the two examples illustrate radically different responses to a situation which has many parallels in Australia, that is, a significant deterioration in public funding. It is this fact, and the expectation of its continuation, that has focussed attention on the binary structure. In Canada, there has been a marked tendency to abolish intermediary bodies and to reestablish direct government interaction with institutions. This has occurred in all three sectors of post secondary education in B.C. In contrast, the response in Wisconsin was to change the governance structure of the institutions involved. The creation of the University of Wisconsin system effectively devolved more authority to the constituent institutions. This devolution involved several responsibilities formerly discharged by the coordinating intermediary, but it also enhanced flexibility significantly. While the former of these two options could be contemplated in Australia (at both State and Federal levels), the second (Wisconsin) option is untenable as all except two institutions operate under State statutes - which prompts one to question the relevance of the notion of a national 'system' of universities in Australia.

Third, in both examples, there is a clear recognition of institutional character, uniqueness, and mission. In the case of Wisconsin, this recognition is coupled with an awareness of the need for comparability and adequacy of programme funding while eschewing the 'least common denominator' (MISC, 1973, 5) as a relevant or desirable objective. The deliberate reference to expected variation in support costs indicates an acceptance of the implication of institutions with different missions offering similar programmes.

Status is unquestionably a central feature of the structure debate. The opening sentence of the WA Minister for Education's second reading speech on November 25, 1986 to change the name of the Western Australian Institute of Technology to the Curtin University of Technology contained the following statement:

> This Bill in providing for a change of name of WAIT to the Curtin University of Technology will enhance the Institution's status.'

The debate on structure should elucidate the relationship between status and educational function or role; funding, especially research funding; position within the notional, national system; diversity within and between institutions; community perceptions; and institutional aspirations. It is clear that we have moved a long way since the 1965 Martin Report sought to provide a sense of corporate purpose and identity to the newly recognized tertiary system. It is worth noting that the status argument in the context of the binary system generates a great deal of heat because it offends the pervasive egalitarianism that informs (possibly in an unconscious way) much of the higher education debate in Australia.

Finally, may I suggest that what we need in Australia at present is a planning language that permits all those who participate in the planning, evaluation and funding processes to understand their contributions and the interrelationships amongst the various activities. A useful beginning would be to explore a threefold distinction for each institution: first, what it ought to be; second, what it is; and third, what it hopes to accomplish. By superimposing a normative dimension on the time dimension, we could well achieve a much better appreciation of institutional character, mission, and uniqueness and thereby minimize the likelihood of Barker's third scenario, 'the fragmentation of higher education once again with various clusters' (Barker, 1986).

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W(H)ITHER BINARY?

A Seminar on the Organization of Higher Education
in Australia for the 21st Century

SEMINAR PAPER

Session Two: Wednesday 18 March 10.40 - 11.40 am

Keynote Address

THE ORGANIZATION OF HIGHER EDUCATION IN AUSTRALIA:

OPTIONS FOR THE FUTURE

Dr Edwin Kerr
Former Chief Officer
Council for National Academic Awards
in the United Kingdom

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INTRODUCTION

1. In this paper the principal options for the future of the tertiary education system in Australia are discussed. A number of options will be presented in other sessions of the Conference and these will be embraced in the discussion which is presented below. While it would be possible to proceed immediately to an analysis of these various options an alternative approach has been chosen. In this approach some aspects of the development of binary policies in other countries over the past 25 years are reviewed. It is hoped that such a review will enable the Conference to see the current Australian scene from a number of historical and international perspectives. It is also hoped that this approach will assist in the development of a check list of factors or criteria which should be taken into account in analyzing and judging the options for the future.

2. This review will concentrate on the binary policies in England, Wales, Scotland, Northern Ireland and Hong Kong, with all of which the author has been directly involved. It will commence with a look at the original statements of the binary policy for England and Wales and will then outline more recent events in the above countries including those listed in the bibliography at (2) to (8) inclusive.

3. Then in the second part of the paper the options for the future in Australia are discussed in the light of the policies and principles in other educational systems and of the current situation in Australia.

The Original Statements of the Binary Policy for England and Wales

4. The Robbins Report on the future of Higher Education in the UK was published in October, 1963 and many of its key recommendations were immediately accepted by the Government of the day. The recommendations which were accepted included:

   (i) The ten Colleges of Advanced Technology and two of the Scottish Central Institutions should become universities.

   (ii) A Council for National Academic Awards (CNAA) should be established by Royal Charter to approve courses offered in non-university institutions, when the courses were judged to be comparable in standard to those in the universities, and to confer degrees upon students who succeeded in these approved courses.

5. Inter alia the Report also recommended that from time to time as existing institutions reached an appropriate stage of development they should become universities. So in the view of the Robbins Committee the university sector should be progressively enlarged by the best of the non-university institutions themselves becoming universities. This recommendation caused a considerable activity in institutions aspiring to become universities. However, these activities were effectively ended when following the election of a

new government the Secretary of State made his famous speech on the binary policy at Woolwich Polytechnic on 27 April, 1965. This policy was further refined in the 1966 White Paper on 'A Plan for Polytechnics and Other Colleges' (1966) and in another speech at Lancaster University on 20 January, 1967.

6. Before summarizing the objectives of the binary policy it is important to make two preliminary points. 'First, it must be emphasized that the binary policy was not created in the mid - 1960s ..... Mr Crosland began his second binary policy speech, at Lancaster University, by underlining this point: 'I must begin by mentioning a severely practical reason for this policy and the system of higher education that goes with it. That is that the system already existed. I did not invent it; it had been developing steadily since the turn of the century or earlier ..... This was the plural or binary system - whatever you choose to call it - which we inherited. Were we to convert it into a unitary system entirely under university control? .... The plain fact is that we did not start off tabula rasa; we started off with a given historical situation. A plural system already existed.' There is a substantial and highly significant truth in the statement that the binary policy has always existed and probably always will exist. The effective question has always been not whether a binary line should be drawn but where it should be drawn. Indeed one of the most important motives for drawing the line where it was drawn between autonomous universities and maintained polytechnics and colleges was precisely to prevent its being drawn in a place that might have made better administrative sense but would have caused greater normative offence, between higher education of all kinds and 'non-advanced' further education and adult education. The only way in which the need to draw a binary line somewhere can be avoided is by abolishing entirely the present distinctions between higher, further and adult education' (Scott (1)). 'Secondly, ... the binary policy is a policy for all higher education. After all, the binary policy first and foremost was a decision not to establish any more new universities. As a result it embodies a particular view of the correct balance of types of institution and of the styles of higher education which they represent within the total system' (Scott(1)).

Objectives

7. The first objective of the binary policy was to prevent the total domination of the higher education system by the universities. If the Robbins pattern had been followed then of the 558 000 full time higher education students expected in 1980/81 346 000 would have been studying in the Universities, 146 000 in colleges associated with the universities, leaving only 66 000 in other institutions. The Government's decision was that this balance would be quite wrong and that no more universities would be created and that the colleges of education would remain as either local authority or voluntary institutions. It followed from this decision that the Government believed it was possible for an institution to be fully mature and of comparable status to a university without ever becoming a university.

8. The second objective of the binary policy was to encourage the further development of vocational or relevant courses within higher education by making this one of the major tasks laid upon the polytechnics and colleges. The speeches showed the belief that the universities were not well fitted for this task and that more relevant and more vocational courses could be provided by the that the universities were not well fitted for this task and that more relevant and more vocational courses could be provided by the non-university institutions. These concepts were illustrated in the Crosland speeches in a number of ways, amongst which were (a) it should be possible to study less traditional subjects at degree level, (b) such courses might be organized in the sandwich mode, and (c) such courses might have a more flexible structure than that of most existing conventional degree courses.

9. The third objective of the binary policy was aimed at ensuring that full time sub degree courses and part time courses of all types received at least equal attention to that accorded to full time degree courses. Such courses must be an essential part of the work of the polytechnics and colleges. All institutions should plan to meet the needs of all three types of students (ie full time degree students, full time sub degree students and part time higher education students). Though it was also clear that the proportions of the three types would not be expected to be the same in all institutions.

10. The fourth objective of the binary policy was to keep a substantial part of higher education 'under social control and directly responsive to social needs'. Crosland indicated that he was not saying the universities were not socially but that 'given the high degree of autonomy which they enjoy, there is a sense in which the other colleges can be said to be under more direct social control'. The speeches show that he was referring to the system leading to administrative approval of new courses (as distinct from the academic approval of these courses) and that he intended to ensure that specific national needs would be satisfied and that a well balanced higher education system was produced.

11. The fifth objective of the binary policy was to retain a substantial local education authority stake in higher education and thereby to provide a form of democratic accountability and to provide good financial housekeeping. It was felt that the local education authority presence would guarantee pluralism and encourage the development of a more diverse system to meet more diverse needs. It was argued that a variety of institutions under different control was better than a monopoly. (Mr Crosland said at Lancaster that 'a unitary system would surely imply an omniscience which we do not possess').

12. The sixth objective of the binary policy was that the institutions should achieve excellence in teaching and the research which they were to undertake was to be less in extent than that undertaken in the universities. In other words, the institutions were to be primarily teaching establishments and their research activities were to be of an applied nature and strictly related to the teaching function.

13. The seventh objective of the binary policy was that the polytechnics and other colleges should attract students from a less restricted social constituency than the universities and thus provide an alternative route into higher education. The kinds of students the non-university sector was designed to help would include:

(i) underachievers at school who have not demonstrated that they are of university calibre,
(ii) those who do not come to higher education straight from school because they left school at 16 (and possibly then gained some qualification in non-advanced further education),
(iii) mature students, and
(iv) first generation students who probably for social reasons did not want to apply to a university.

14. These seven objectives incorporate the essence of the original statements on the binary policy for England and Wales. On account of the way financial matters figure largely in the current debates on the binary policy it is significant that there was not also an eighth objective, namely, to provide higher education comparable in standard to that in the universities but at much lower levels of expenditure.

15. The binary policies in Scotland and Northern Ireland had similar objectives to those set out above for England and Wales, but the policies and their implementations also had important distinctive features reflecting the historical and political situations in these countries. Some references to these situations are made below.

Achievements

16. Before passing to a consideration of the developments of the 80's it is interesting to attempt very brief statements on the achievements of the past 20 years against each of these objectives.

17. The first objective of ensuring that, the non-university sector was a major one has certainly been achieved as the following statistics show.

'The numbers of home and overseas students, at all levels of study, in higher education institutions in the UK in 1984-5 is shown below.

	No of Inst'ns	FT/Sandwich HE Students	Part time HE Students	Total HE Students
Universities	53	305 008	40 752	345 760
Polytechnics	30	156 345	69 233	225 578
Scottish Central Institutions	14	14 558	1 003	15 561
Other Maintained Colleges	414	80 000	123 784	203 784
Direct grant/ Voluntary College	43	33 587	7 471	41 058
Total	554	589 498	242 243	831 741

In addition, the Open University in 1985 had 67 433 students on its undergraduate programme, a further 8 999 associate students taking undergraduate courses on a one-off basis, and 943 post graduate students.

The proportions of full time and sandwich home undergraduates in the universities and in non-university institutions respectively in 1984-85 in each of the countries was as follows:

	England	Wales	Scotland	N Ireland	UK
Universities	44.4	58.2	54.3	90.4	47.8
Other Institutions	55.6	41.8	45.7	9.6	52.2
	100	100	100	100	100

(Source: Croham (2) paras 2.39, 2.40)

18. Scott (1) has written as follows:

'The success of the binary policy's second objective the promotion of courses in subjects that are more vocational and relevant than those offered in universities, is almost impossible to assess ... The spectra of subjects offered in the two sectors largely coincide. The difficulty experienced in the early 60s whereby certain subjects could not be studied to degree level because of the conservatism of the universities ... has dwindled away to insignificance as a result of the success of the CNAA. ... However there is evidence that polytechnic and college students do regard their institutions as more relevant than universities .... The impression is that polytechnics and colleges have been more adventurous in experiments with the traditional structure of the honours degree. ..... But there is one measure of the difference ..... which is fairly unambiguous; that is the relative fortunes of sandwich courses. .... The general impression created by these figures is of a greater willingness among polytechnic graduates to enter permanent employment and for that employment to be at the 'sharp' end of industry and commerce, in production rather than R and D in marketing rather than in financial control.'

19. The success of the third objective of the binary policy, ensuring the continuation of sub degree and part time courses, is easier to assess. The non-university sector is succeeding in maintaining and developing courses of these types. Inter alia it is making a significant contribution through part time courses to continuing education and training and to the continuing professional development of those in employment. This is one crucial test of the successful achievement of the objectives of the binary policy.

20. The fourth objective of the binary policy was to keep a substantial part of the higher education system subject to greater 'social control' than the universities. This has been achieved. And the National Advisory Body for Public Sector Higher Education (NAB) is succeeding in bringing financial planning and academic planning together at the national level.

21. The fifth objective of keeping a substantial local education authority stake in higher education has also been achieved. (Though this aspect is under some strain and changes may occur in the future.)

22. The non-university sector has acquired a good reputation for its teaching. Various studies have indicated that the standards achieved are regarded as very good by students and official inquiries. The achievements in research have probably exceeded the expectations expressed in the sixth objective. These are separately discussed later in the paper.

23. The seventh objective of the binary policy was to open paths into higher education to 'new students' who could not or would not aspire to enrol in a university. It can fairly be claimed that this objective has also been achieved. Firstly, although those entering degree courses on the basis of A levels do, on average, have lower A level grades than those entering university, yet they do obtain a comparable spread of degree results (though the dropout or transfer rates may be higher). Secondly, many more degree students in polytechnics and other colleges enter with qualifications other than traditional A levels. Thirdly, the entry of mature students is significantly larger in the non-university than in the university sector. And fourthly, the non-university sector draws its students from a wider social constituency than universities.

24. These achievements are really significant and it can be concluded that the educational opportunities would have been poorer and the beneficial diversity of the system would have been much less if the many factors which shaped the non-university sector, including the binary policy itself, had not existed.

<u>The Leverhulme Programme of Study into the Future of Higher Education (July 1980 - May 1983)</u>

25. As the programme proceeded nine detailed studies into particular aspects of Higher education (eg Access to Higher Education) were published in the period 1981-83. The programme culminated in the final report Excellence in Diversity - Towards a New Strategy for Higher Education' which was published in May 1983.

26. The following extracts from this final report will quickly set out the general flavour of the background to and the aims of the programme.

26.1 Firstly from Chapter 1 - Background

Para 1
'Today's children will inherit a world of high technology, and they will probably spend less of their lives in paid employment than any previous generation. While at work, however, they will need to be more efficient and more productive than ever before. In work and in leisure their well-being will depend on their knowledge, skills and creativity. Universities, polytechnics and colleges are not the only social institutions involved in producing and disseminating knowledge, developing skills and cultivating creativity, but their role is a crucial one.'

26.2 Para 2
'For some years there has been no coherent national policy for higher education'. The para then proceeds to show that demographic and other studies suggest 'there will be substantial excess capacity by the early 1990s unless universities, polytechnics and colleges can adapt to new tasks and to the needs of new types of student. They must be capable of responding to academic developments and to fresh demands from society. They must be in the forefront of technology, both initiating and evaluating it. However, little additional capacity will be created. New developments must come from adaptation, not expansion.'

26.3 Para 3 and 4 continue 'Much of the work of colleges, universities and polytechnics is intrinsically valuable but this does not preclude the need for some public accountability. Major industries have declined when demand has changed and enterprises have been unable to adapt. Response to changing demand need not be passive acceptance of external circumstances. Education is properly concerned with influencing public attitudes. Nevertheless, the case for public expenditure on higher education must be based on benefits for the nation, not merely on the convenience or interest of members of the higher education community. One of the main aims of this report is to suggest changes which would make more visible the contributions of higher education to the economy and to society.

Expenditure has to be restrained in an activity that must remain largely within the public sector and compete for resources with other social and educational services. Relief from the pressure of demand from school-leavers following the dramatic fall in the 18-year-old population will provide opportunities for the establishment of new patterns of courses within stable budgets. The strategy outlined in this report would encourage the development of a network of vigorous, efficient and cost-effective institutions, each excellent in its own range of activities, each imbued with a strong sense of academic purpose and responsive to the needs of a wider society.'

27. Chapter III - The Aims of the Strategy is as follows:

(a) To provide opportunities for all who are able to benefit from some form of higher education and to encourage access from a broader social spectrum than at present.
(b) To reduce undue specialization in secondary education and the initial years of higher education.
(c) To create a framework within which the quality of teaching and research can be maintained at a time when underlying demographic trends will make competition for resources difficult.
(d) To stimulate research and other academic activities not directly linked to student numbers.
(e) To encourage institutions to prepare realistic development plans.
(f) To increase the capacity of universities, polytechnics and colleges to respond positively to changing academic, social, economic and industrial needs.
(g) To promote efficiency in the use of resources.
(h) To create a framework for policy and management studies that will help leaders of academic institutions meet the challenge of adaptation without growth.'

The far-reaching nature of these aims is worth noting.

28. Three parts of the Report are particularly relevant for the immediate purposes of this Conference, namely, Sections VII and IX on Research and the Binary System, respectively and, thirdly, the relevant supporting material from the summary of evidence. At this point in the paper attention is focussed on the Binary System. Research is considered below.

BINARY SYSTEM

29. The main elements of Section IX are as follows:

'A variety of learning opportunities might be provided by a few large comprehensive universities each covering a wide range of activities and a large catchment area, or by a wider geographical spread of smaller and more differentiated establishments. While the extremes of huge, all purpose institutions and very specialist monotechnic institutions can easily be rejected, an important strategic choice is whether there should be a move in either direction. On balance, the need to maintain quality and to broaden access in a period of intense competition for resources points in the direction of institutional differentiation ..... There remains a considerable concentration of institutional effort around the first degree in both universities and the public sector.

30. 'Does the overlap of academic functions suggest that the binary system should be abandoned? Does the great variety of institutions, particularly in the public sector, suggest it should be drawn in a different place? Should universities and other institutions be more sharply differentiated, with the universities as a group moving more towards the research and postgraduate end of the spectrum while public sector institutions move even more towards the sub degree and part time work? There are no easy answers to such questions. The binary system involves three distinct differences between sectors: legal and administrative status, mechanisms of finance and methods of academic regulation. It is not clear that the differences in legal status need correspond to the other two distinctions. Similar activities can be performed by institutions with different administrative arrangements.'

31. 'While the role of individual institutions need not be determined by their legal status, the existence of one segment of higher education pulled in the direction of research and scholarship and another pulled in the direction of local and regional social and industrial needs does help to remind members of all institutions of the essential diversity of higher education. The binary policy did not prevent drift towards academic courses in the face of demand from students supported by mandatory grants, but it does provide a mechanism whereby different aspects of higher education can be highlighted.'

32. 'It would certainly be regrettable if the existence of the binary system hampered co-operation between institutions. However, the extent of co-operation between institutions <u>within</u> either sector is sufficiently limited to cast doubt on whether it is the distinction between universities and other institutions which inhibits the sharing of resources. The binary system in itself is not an insurmountable obstacle to academic cooperation and joint use of resources and even, in some cases, the merging of institutions. No doubt the blurring of the binary line will continue.'

33. This was signed by the chairmen of the eight seminars which made up the programme of study but only subject to a note of dissent from Sir Bruce Williams. He wrote:

'In my view, the case for a multi-sector system is much stronger than implied in Section IX. .... There has been a tendency to criticize the binary system on the ground that it is divisive, but far too little attention has been given to the need for

institutional differences, and a multi-sector framework of control, to ensure an adequate range of courses, approaches, and educational opportunities.'

34. Thus it is clear that Sir Bruce believes a clearly defined multi-sector system will best protect and promote diversity. Further attention will be paid to this issue in the sections of the paper dealing with the options for the future.

Strategies for Higher Education into the 1990s - NAB and UGC

35. In 1983 the Secretary of State for Education and Science asked both the NAB and the UGC to provide him with advice on the Strategies for Higher Education which the Government should adopt for the period until the end of this century. Each Strategy Report contained the same chapter on Higher Education and the Needs of Society. In the introduction to its Report NAB explained the background to this chapter in these words:

'Recent discussion of the future of higher education has been dominated by the prospect of demographic decline and its impact on likely future student demand. .... We believe however that this is not the most appropriate place to begin our review. Future demand must be placed in the context of societal need. The more fundamental question is, therefore, the role of higher education in economic, social and personal development and the likely needs of the economy, of society and of individuals in the 1990s. This is the question we address in Chapter 2. From this emerges the major concern of our report: the identification of the changes which will be required to enable higher education to meet societal needs in a climate of resource constraint while maintaining standards.'

36. On account of its historical and intrinsic interest the common chapter is reproduced in full as an attachment to this paper.

37. The main bulk of the advice from each body relates to the sector for which it has a responsibility, and it is in the common chapter that they together address the respective roles of the sectors and of the interactions between them. All of the chapter is relevant to this Conference but paras 2.12 and 2.14 are especially so.

38. In 2.12 the bodies express it as their view that there is no general problem of duplication in the extensive overlays between the sectors, while in 2.14 they agree that there is a legitimate research role for the major public sector institutions, both to support and sustain teaching and as a contribution to the advancement and application of knowledge.

39. Of course this last statement is especially significant for it contains explicit advice that the research role of some of the non-university institutions should now be recognized and enlarged beyond that contemplated in the original statements of the binary policy, and (by implication) that this enlargement should be carried out within the binary policy. Further attention is paid to this issue below.

40. It is also of interest to draw attention to some of the other parts of the NAB advice to the Secretary of State. The following quotations from the summary will be sufficient for this purposes.

'This report is wide-ranging, but the central themes are clear:- demand will remain strong; access must be available to those able to benefit from higher education; and standards cannot be maintained in the public sector if the unit of resource is allowed to fall any further. In elaboration of these themes we identify the following key recommendations:-

(i) the provision of continuing education should be accepted as a major objective of higher education;
(ii) 'ability to benefit' should be the dominant criterion for entry to higher education;
(iii) more diverse patterns of provision and more flexible entry into higher education are needed; general courses of higher education at the higher diploma level must be encouraged; and increased provision of Bachelor of Technology, higher diplomas and certificates supported;
(iv) a system of external quality assurance of courses based on peer group assessment must be retained;
(v) there is no practical scope within public sector higher education for a further reduction in the average level of the unit of resource; on the contrary, additional resources will be needed to:-
- accommodate increased demand
- provide adequately for the updating of teaching staff and/or for the provision of some 'New Blood'
- provide suitable, properly maintained premises
- finance a major initiative in respect of equipment
- support the development of continuing education, and stimulate innovation
- provide selective support for research;

(vi) a common unit of resource for teaching purpose should be accepted as the policy basis underlying the future allocation of funds to the sectors of higher education;
(vii) the principle of accountability in public sector higher education should be re-affirmed and exercised through control over key academic, administrative and resource issues; institutions should be allowed the maximum possible freedom to manage their own affairs within the framework of their articles of government.'

41. Members of the Conference will be especially interested in the recommendations (v) and (vi). Further attention will also be given to the funding and research issues below.

<u>The Development of Higher Education Into the 1990s: The Government Green Paper of May 1985</u>

42. In this paper the government presented its views on the desirable development of higher education and invited reactions to these views. Inter alia the paper commented on the recommendations from Leverhulme, the NAB and the UGC. Those who had prepared these documents hoped that in the Green Paper the Government would see things in a similar light and would set out a clear, ringing and inspirational reaffirmation of the broad purposes of higher education.

43. The Green Paper is set out as follows:

'1 The Government's Main Concerns
2 Higher Education, the Economy and Subject Balance
3 Access to Higher Education
4 Education Throughout Life
5 Research and Postgraduate Education
6 Patterns of Provision and Academic Standards
7 Institutions and their Management
8 The Structure and National Planning of Higher Education
9 Finances, and Planning for the Longer Term'

44. The Green Paper does address most of the issues in the Strategy Reports but the emphases in the first two chapters has appeared to most commentators to imply that the Government is primarily interested in the manpower needs of society and is only interested in the needs of individuals if these happen to match those of Society. Much of the comment was extremely hostile to the views set out in the paper. However these issues cannot be followed through here. Chapters 5, 8 and 9 are those of greatest interest to this Conference. The first of these is considered below and the comments on Chapters 8 and 9 can be brief.

45. Firstly, the binary policy will continue for 'The Government has no plans to alter the main shape of these (funding) arrangements' (Green Paper 8.1).

46. Secondly, the current planning system will continue for '... the Government sees no practical scope for a united planning body for higher education of the kind comprehended by the term 'overarching body'' (Green Paper 8.1).

47. It is also worth noting the contents of 1.8 of the Green Paper:

'The Government has no wish to impose a uniform pattern on higher education; on the contrary, the Government would like to see even greater vitality and flexibility. .... While the universities are the principal guardians of pure academic excellence and the main source of creative research, they are not the paradigm for higher education as a whole. The polytechnics and other institutions have a distinctive responsibility to prepare people for a wide range of activities.'

48. On resources for higher education there are a number of points to be made. The UGC advised that there should be level funding while the NAB advised that there should be no fall in the average unit of resource and that between the sectors there should be a common unit of resource for equivalent teaching purposes. All these recommendations have been rejected in the Green Paper. Thus we read 'The Government's expenditure plans ... will require continuing gains in efficiency ... . They imply a further tightening of SSRs.'

49. In a Presidential address to the Education Section of the British Association for the Advancement of Science, the author of this paper said

'Although there may be limited scope for some further gains in efficiency, the funding policies adumbrated in the Green Paper in my view imply either there must be a fall in the unit of resource with a resulting fall in standards or a reduction in the level of access to higher education. Neither outcome would be desirable. It is to be hoped that the Government will reassess its present funding policies to avoid either of these outcomes.'

50. The Secretary of State was surprised by the vehemence of the responses to the Green Paper. He stoutly defended the Government's views. But he also made a number of conciliatory speeches. In the past few months his successor as Secretary of State has found some additional resources and the squeeze on resources has been moderated somewhat.

Future Strategy for Higher Education in Scotland

51. The Scottish Tertiary Education Advisory Council (STEAC) was appointed in July 1984 and, inter alia, was asked to advise the Secretary of State for Scotland on the future strategy for higher Education in Scotland, including the arrangements for planning and funding and the general principles which should govern the relationships between the university and non-university institutions. In May 1985 it was asked to take account of the Green Paper in its deliberations. It presented its Report in December 1985. This has generally been reckoned to be a much better and more forward looking document than the Green Paper. The Report is especially relevant to this Conference on account of the fact that it was a detailed review of higher education in a separate part of the UK.

52. In the following Foreword it elegantly summarized the distinctive features of Scottish Higher Education.

'By way of introduction to this report, we think it desirable to list some distinctive features of Scottish education which form the background to our review of Scottish higher education. These are as follows:

(i) A secondary school system which has traditionally been characterized by a broad curriculum and an avoidance of early specialization.
(ii) A similarly broadly-based examination system, the Scottish Certification of Education, which is commonly taken at the higher grade in the fifth year of secondary education and which provides the basic qualifications for entry to higher education.
(iii) A consequent tendency (particularly noticeable in the west of Scotland) for school-leavers to enter higher education at the relatively early age of 17-18.
(iv) Consistent with early entry to higher education, a four-year Honours degree course in most subjects.
(v) The existence, in parallel with Honours degree courses, of broadly-based three-year Ordinary degree courses, taken by

almost half of the Scottish higher education students and leading to a distinct form of qualification which is valued and respected in its own right.

(vi) Traditionally high participation rates in higher education.

(vii) Universities which admit large numbers of students from outside Scotland.

(viii) Consistent with (vi) and (vii), a higher education system which produces a share of graduates exceeding the proportion of Scots to the overall population of the UK.

(ix) A non-university sector which is for the most part funded, and in which the range of courses is controlled, by central Government; which does not contain polytechnics; and where course provision is essentially complementary with that of the universities (eg, liberal arts courses are provided only in the universities and, where the same subjects are offered in both the university and the non-university sectors, the approach is different).

It is important that these distinctive features, as part of Scotland's educational tradition, are kept firmly in mind in the consideration of our report. Although the problems and challenges facing higher education in Scotland are substantially the same as those elsewhere in the UK, it is essential that the response to them should derive from, and be appropriate to, the Scottish system.'

Note by Edwin Kerr:

It is stated in (ix) that the funding for the non-university sector is provided by central Government, this means that it comes from the Scottish Education Department and that the Secretary of State for Scotland is the responsible Minister. On the other hand the funding for the Scottish Universities comes through the University Grants Committee and the Secretary of State for Education and Science is the responsible Minister.

53. Three themes in the Report itself are of interest, namely the Future Roles of the Sectors, the Future Organization of Higher Education and Planning and Funding Arrangements. These are now considered in turn.

The Future Role of the Sectors

54. The views of STEAC on the first of these themes will be apparent for the following extracts from Chapter 5.

'Central Institutions

5.17 The central institutions are by far the principal providers of higher education in Scotland outside the university sector. Their concentration on vocational courses, which has been preserved and encouraged by SED policy, has resulted in a responsiveness to employers' requirements which is of great value to industry, commerce and the professions. The provision of courses with a strong vocational orientation should continue to be the prime function of central institutions. We believe that their particular strengths in the provision of engineering and technological education at degree level should be further developed, and we welcome the Government's decision to make additional resources available for this purpose from the 1985-86 academic year. The contribution of the central institutions to business and management education, to the manpower requirements of the health service in the professions supplementary

to medicine, and in other specialist fields is also of major importance, as is their role in training for the performing and visual arts. As we have already indicated (see para 5.2), they do not provide courses in the liberal arts, nor do we consider that they should do so.

5.19 A further characteristic of the central institutions is their involvement in sandwich education, over one-third of all their full-time students being on sandwich courses. These courses provide a vital link between higher education and employers in industry, commerce and the professions; and we would be most concerned if current problems in securing student placements were to lead to any decline of sandwich courses. We have noted the Government's recent report on research into sandwich education and trust that the difficulties which its authors encountered in seeking to apply cost-benefit techniques to courses of this sort will not lead to any downgrading of sandwich education in the central institutions.

5.21 The central institutions are distinguishable from the universities also in the level of their research activity. Teaching is regarded as the main function of central institution academic staff and the SED has not been prepared to fund research activities to any significant extent through recurrent grant. Some applied research is nevertheless carried out in central institutions, a number of which receive substantial grants from research councils. We believe that in the central institutions, as in the universities, research can improve teaching by enabling academic staff to keep up to date in their subjects and can strengthen their industrial links. While we accept the proposition in the Green Paper that fundamental research should be mainly the preserve of the universities (see para 5.3), we believe also that the central institutions should be given the opportunity to engage much more substantially in applied research. Additional research activity will stimulate the provision of consultancy services to industry, the expansion of which can yield both educational and economic benefits. This will not, however, be achieved unless additional resources for research are provided to central institutions through recurrent grant.

5.22 We are not, of course, advocating the immediate establishment by all central institutions of sophisticated and expensive programmes of applied research, and the emphasis will vary from one college to another. Those disciplines with the strongest relevance to the country's economic recovery, and in particular engineering and technological disciplines, are clearly the areas of highest priority.

5.24 A substantial number of students in central institutions pursue advanced courses of study below degree level and the proportion of such students has risen with the incorporation of Napier College of Commerce and Technology and Glasgow College of Technology into the central institution sector. Such courses conform with the general pattern of central institution provision. They have a strong vocational bias and cover a wide range of social, administrative, business, engineering and technological subjects; they meet an important demand from students and employers;..... We believe that the central institutions' contribution to tertiary education at sub-degree level should be sustained...

5.43 In this chapter we have broadly endorsed the present roles of the universities, the central institutions, the colleges of education and the local authority sector of higher education in Scotland and we propose that they should continue on similar lines. We have no reservations about the quality of provision being offered by each of the sectors; and we are confident that, if they can be mobilized within an overall strategic approach, they will continue to make a vitally important contribution to the economic, social and cultural well-being of Scotland and the United Kingdom as a whole. In Chapter 7 we refer to the problems of planning and coordination in this diverse system and offer a solution to the problems which arise in that context.

5.44 Some changes are, however, necessary. We consider that the universities must continue to develop their responsiveness to industrial and commercial needs, and that both they and the central institutions should pay greater attention to the marketing of their services. We consider also that the central institutions have been unreasonably restricted in the funds made available for research and, provided that such research has clear applications to technological, industrial and business problems, **we recommend** that additional funding for this purpose should be made available to them through recurrent grant. **We also recommend** that funding should be made available through recurrent grant to the colleges of education for research in education ...'

55. The conclusions are clear and need not be commented on at this stage: further consideration will be given below to the recommendation on research.

The Future Organization of Higher Education

56. The Report introduced the chapter on The Future Organization of Higher Education as follows.

'6.1 Having concluded that the different sectors of Scottish higher education should continue in the future in their present roles, we considered whether there were improvements in the way in which the sectors might be organized to enhance their ability to undertake them.
6.2 We received a number of proposals for change, but the bulk of the evidence favoured retaining distinctions among the structure and management arrangements for the different sectors, while at the same time encouraging greater co-operation among institutions, especially at local and regional level. It was, however, suggested by some that central institutions should be given university status and by others that such status should be conferred on one or more groupings of non-university institutions...'

57. The Report went on to state a number of criteria against which organizational change involving the directly funded sector and the universities should be tested. The list is as follows.

'Criteria for Change and Possible Options

6.6 The criteria against which we tested proposals for organizational change were the following:

(i) that any organizational innovation should not alter the distinctive vocational characteristics of the present non-university sector (see para 5.2);

(ii) that schoolteachers should continue to be trained in specialist institutions (see paras 5.28-31);
(iii) that any reorganization of Scottish higher education should at least maintain, and ideally enhance, the quality of education and training provided to students and the service provided to employers;
(iv) that reorganization should facilitate any future rationalization of the provision and co-operation among institutions so as to enable them to respond to demographic changes and shifts in the pattern of demand; and
(v) that any reorganization should not be dependent on the provision of significant additional resources.

6.7 Against these criteria we considered a number of possible structural changes including the following principal options:

1. local or regional unions of institutions on the lines proposed by Aberdeen University, under which central institutions and colleges of education would, in effect, be absorbed within an existing university;
2. groupings of central institutions and colleges of education, in regional 'federations' or 'polytechnics' covering the west, east and north-east of Scotland, each with a single governing body which would replace the governing bodies of the constituent institutions, but with each institution retaining its academic board or council;
3. groupings of central institutions and colleges of education in a number of functional 'federations' on the lines of Option 2, but organized on the basis of course provision rather than geographical location;
4. a grouping of central institutions and colleges of education within an all-Scotland 'federation', under a single governing body which would replace individual institutions' governing bodies, but with each institution retaining its academic board or council. A variation on this option was a federation with university status and a charter which preserved the essential vocational features of the public sector.'

58. While some of these options were seen to have certain potential advantages they were each held to have greater potential disadvantages and the conclusion was that the potential disadvantages outweighed the potential advantages.

59. The disadvantages which applied to some or all of these options included:

- This would threaten the existence of a distinctive vocationally-orientated sector of higher education. Sub-degree provision would be at risk.

- The Council doubted whether the creation of a number of what would in effect be substantially enlarged universities would facilitate the most effective use of expensive resources.

- There is no guarantee that the needs of employers or of students would be better served than under the existing system.

- The substitution of three new universities in Scotland for the existing directly funded sector does not seem to the Council to sharpen the responsiveness of the system as a whole to future national requirements.

- The Council did not believe that university status could be given without incurring increased costs, and whatever the terms of the charter there could be a risk of drift away from the vocational nature of the public sector.

60. The conclusion was set out as follows:

'6.22 Our conclusion is that none of the options which have been considered above constitutes an ideal model for the future organization of the Scottish higher education system. While the status quo may not be regarded as perfect, particularly in the eyes of those who consider themselves especially exposed to the constraints of public spending, we are not convinced that the present organization does not provide a generally satisfactory basis on which to plan for the future. In our view the case for radical change in organization is not proven...'

Future Planning of Higher Education

61. The third of the interesting topics in this Report is the treatment of the Options for Future Planning of Higher Education. The introductory part of Chapter 7 contains the following:
'7.1 The terms of reference for our review of future strategy for higher education in Scotland include 'the arrangements for providing institutions with financial support' and 'relations between universities and other institutions'. Both issues raise questions of fundamental importance to the future contribution of the higher education system in Scotland to the national's well-being. There can be no doubting the importance of academic planning and coordination of provision across all sectors of higher education if the total resources available are to be used to best effect, a point which has been stressed by many who have submitted evidence. It is also clear that any arrangements for planning and coordination must include a mechanism under which plans can be given practical effect.'

'7.2 In Scotland at present the principal, and by far the most serious, gap in arrangements for academic planning and coordination is between the universities and the directly funded public sector of higher education. In England and Wales the NAB and the WAB appear to have achieved a great deal towards bringing about a coordinated approach to planning of public-sector provision, with decisions taken openly against published criteria; and their creation has provided the means by which a dialogue between the two sectors there can be initiated. There is nevertheless, in the absence of an overarching body, a similar gap to that in Scotland. We believe that the gap can and must be bridged in Scotland...'

Criteria for Change

'7.5 We therefore felt that consideration of possible options for planning and coordination could not be separated from consideration of whether the present funding and administrative arrangements for

Scottish higher education were the best suited to the demands and priorities of the future. We also felt it important, in reaching a view on the most appropriate arrangements for the planning and funding of higher education within Scotland, that any new system should enable decisions taken at a UK level to take account of provision in Scotland. We felt it equally important that any new system should not inhibit or diminish Scottish higher education's national and international links and standing.'

'7.6 Among those who commented to us on planning arrangements there was little dissent from the view that academic planning across all sectors of higher education in Scotland was essential and that this should be organized by a national body on a centrally coordinated basis. A substantial number proposed also that public funds for both university and non-university higher education in Scotland should be distributed by a single Scottish body. Others, though fewer in number, were satisfied with existing funding arrangements. Support for a single funding body came mainly from non-university interests and support for existing arrangements mainly from universities, but there was some diversity of opinion among both individuals and institutions in the two sectors. Submissions calling for greater unification in the planning of higher education in Scotland considerably outnumbered those which expressed satisfaction with present arrangements, although there were different views on how coherent planning might best be achieved. A recurring theme from the advocates of change in funding arrangements was that planning would not be effective unless backed by funding sanctions or encouragement. Support among universities for continuation of the UGC system was strong, although many of the submissions representing university interests had some criticism of how the UGC exercised its responsibilities in Scotland and some were in favour of the creation by the UGC of a Scottish sub-committee. The main criticism made of the UGC was that it did not adequately recognize or understand the distinctive features of the Scottish higher education system and consequently did not take these adequately into account in its planning and funding decisions. The proponents of a Scottish sub-committee of the UGC felt that this additional piece of machinery would overcome these difficulties.'

62. The Report then proceeded to the consideration of a range of options which included:

Option 2: A Planning and Funding Body for the Non-University Sector Only.

Option 3: A Joint Planning Body for the University and Non-University Sectors.

Option 4: A Two-Tier Planning Body.

Option 6: A Joint Planning and Funding Body for Scottish Higher Education.

63. The latter was the most radical one and was presented as follows:

'Option 6: A Joint Planning and Funding Body for Scottish Higher Education

7.19 This option goes further than any of the previous options in providing for the future planning and organization of the Scottish higher education system. It envisages a joint planning body with responsibility for both sectors (on the lines of Options 3 and 4) but with the added responsibility for resource allocations within a system of funding unified under the Secretary of State for Scotland. The new body would thus have funding functions similar to those of the UGC, but for all higher education institutions. A body of this kind would have the distinct advantage over the other options which we considered of providing not only a forum for the planning and coordination of course provision and the distribution of student numbers across both sectors in Scotland, but also an effective means of ensuring that financial allocations were consistent with planning decisions. However, if such a body were established, adequate means would have to be found to ensure continued access by Scottish universities to the UK-based peer review of their teaching and research, and by all higher education institutions in Scotland to appropriate research council funding. This option and the means by which such access might be secured are discussed below at paras 8.13 to 8.28.

Conclusions

7.20 We are unanimous in the view that joint planning arrangements embracing both the university and the non-university sectors are required if Scotland's higher education system is to respond effectively to the needs of the 1990s and beyond. We are also aware of the problems which can arise when responsibility for planning is separated from responsibility for funding. For that reason we felt it necessary to pursue in more detail the potential functions of a joint planning body on the lines of Option 4, and a joint planning and funding body of the kind described in Option 6. This we do in Chapter 8.'

64. The key parts of Chapter 8 are as follows:

'Proposed Planning and Funding Arrangements

Introduction

8.1 In this chapter we examine in more detail the functions which would be carried out by a joint planning body (as outlined in para 7.16) and a joint planning and funding body (as outlined in para 7.19), and how such bodies would be composed. For the purposes of this report we call the former a Scottish Higher Education Planning Council (SHEPC) and the latter a Scottish Higher Education Planning and Funding Council (SHEPFC), but our expectation is that if either variant were established it would be called the Scottish Higher Education Council.'

'A Scottish Higher Education Planning Council (Option 4)

8.2 In our consideration of Option 4 we assume that the UGC would retain its existing funding responsibilities in relation to the Scottish universities, but that these would be exercised through a

Scottish sub-committee. We assume also that the Scottish sub-committee would include academic and non-academic members appointed by the UGC, some of whom would in turn be appointed by the UGC to the SHEPC.

8.3 We further assume that the body charged with the distribution of funds among the directly funded institutions which are administered by the Scottish Office would similarly comprise members appointed in this case by the institutions themselves (with appropriate representation of the SED) and that some of these would also serve on the SHEPC. We envisage that the SHEPC itself would in addition include representation from industry and commerce, and from the local authority sector to take account of the advanced education provided in further education colleges. It would also have members appointed by the Secretary of State for Scotland.

8.4 The prime function of any joint planning body would be a continuous review of demand for places in higher education in Scotland. This would require adequate statistical information covering numbers of school-leavers, mature entrants and continuing education students. In reaching decisions a planning body would have regard to the needs of individuals and of society in general; to the requirements of employers in industry, commerce and the public service; to the needs of the professions; and to Government policy. In seeking to balance the requirements of society and individuals it would also have to take account of the supply of, and demand for, qualified manpower outside Scotland. Higher education planning in Scotland cannot be carried out in isolation from wider UK requirements and must recognize Scotland's traditional contribution to the supply of graduates throughout the UK. Indeed we believe that the Scottish higher education system should not be insulated from adjustments in response to changes in employment opportunities nationally.

8.5 A joint planning body would be expected to identify shortages of qualified manpower in priority areas and to provide firm guidance on the adjustments in provision which would be required to rectify such shortages. Both second-tier bodies would be expected to take full account of such guidance in the distribution of funds. We do not envisage that the SHEPC's advice would determine the allocation of funds to the Open University,notwithstanding the contribution made by that institution to the training of graduates in Scotland; but the role of the Open University, especially in the field of continuing education, would require to be taken into account. We would also expect a joint planning body, in consultation with Government, the UGC, the NAB and other bodies, to identify surplus provision and to make proposals for rationalization or contraction where this was required. In addition to access to adequate statistical data on student numbers, there would therefore require to be access to comprehensive information, including that of cost, in relation to individual institutions in both the university and non-university sectors.

8.6 For a planning body's decisions to be fully effective, we strongly believe that they would have to be communicated to and understood within the education system as a whole. The second-tier bodies covering the university and non-university sectors would have a crucial role, but so too would schools, employers, the professions

and the Government. Representation of the local authorities on the SHEPC would provide an important link, not only with higher education provision in further education colleges, but also with the funding authorities responsible for schools and non-advanced further education.

8.7 A joint planning body would also have a role to play in ensuring the cost-effectiveness of the higher education system. The Green Paper has stressed the need for efficient and effective management of higher education institutions. We endorse this approach and note the achievements which have been made in recent years. The SHEPC would have to define and take into account appropriate performance indicators, including student:staff ratios, unit costs and non-completion rates, in drawing up its plans.

8.14 The SHEPFC would, however, take over responsibility also for recurrent, capital and equipment grants allocated under existing arrangements by the UGC to the Scottish universities, and for similar grants paid by the SED to central institutions and colleges of education. Allocations to all institutions within its remit would be made from funds provided by the Secretary of State for Scotland, so that the Scottish Office expenditure block would have to be enhanced by an amount sufficient to reflect the Scottish universities' present share of public funds provided to universities throughout Great Britain.

8.15 It is also assumed in this option that grants awarded to the Scottish universities by the research councils, the Computer Board for Universities and Research Councils and other similar sources would continue to be provided on a UK basis, and that responsibility for funding the Open University in Scotland would remain with the Secretary of State for Education and Science. The need for SHEPFC to take account of Open University provision in its planning arrangements (and for the Open University to take account of priorities in Scotland identified by the SHEPFC), which we noted at para 8.5 in the context of Option 4, would remain. Nor would there be any reason to change existing arrangements for financing local authority higher education provided that there was local authority involvement in the planning process through representation on the SHEPFC. The SHEPFC would also have to co-operate in the wider national context with the same range of organizations as an SHEPC established under Option 4.

8.16 Because funds would come from a single source, the Scottish Office, a formal two-tier structure with the lower tier divided by sector, as envisaged under Option 4, would not be required. The structure and procedures would therefore be less complex. However, there does seem to us to be a need under any joint planning and funding arrangement for there to be a council, with responsibility for strategic decisions, which would be serviced by committees responsible for planning at institutional, functional, course and subject level. The existing UGC pattern would suggest that such committees should in the main be subject-based, but some would cover functional areas such as equipment and continuing education.

8.22 We took into account the universities' deeply held reservations about any transfer of funding responsibility to the Scottish Office which removed them from the existing GB-based system of funding through the UGC. These reservations stem from concern that the transfer of responsibility to the Scottish Office might take the Scottish universities out of the UK peer review system...

8.25 ....This would lead, as the universities see it, to a diminution in their standing within the UK and internationally, ...

8.28 We recognize .... they (the universities) would continue to be concerned at the possibility that a SHEPFC might reduce the level of research funding through recurrent grant. We accept the importance of research in the universities and are convinced that the Scottish universities must continue to contribute to the UK's research programmes, however the universities are funded; but that does not mean that university research should cease to be subject to critical examination. We concede, therefore, that some universities in Scotland might well experience some adjustment in research funding through recurrent grant under the SHEPFC. As we have noted (see para 5.11), the UGC has embarked on a study of the scale and objectives of university research in the context of a move towards greater selectivity in allocating funds, which is endorsed by the Green Paper. Remaining subject to the UGC funding system therefore provides no guarantee that current levels of research funding for individual universities would be maintained in the long term.'

'Conclusions

8.29 We are convinced of the need to establish in Scotland, at the earliest opportunity, an appropriate mechanism for the planning and coordination of higher education provision across the university and non-university sectors, and for the formulation of advice in respect of both sectors to the Government. We believe that the only reliable way to establish such a mechanism is to create an overarching body with responsibilities of the kind which we have described in this chapter. Nor are we in any doubt about the need to ensure that decisions taken within it are implemented. The majority of us also believe that the concentration of funding of both the public sector and university sector of higher education in Scotland within one Government department is likely to be the most sound basis for effective implementation of academic planning and coordination of provision. These considerations point to the acceptance of Option 6 as the most appropriate way forward. We are certain, however, that whatever arrangements are established there should be safeguards to ensure that both the quality and the national and international standing of Scotland's universities as centres of research as well as teaching are maintained; that planning and funding in Scotland are not carried out in isolation from the wider UK context; and that the Scottish universities continue to have access to satisfactory UK peer-review arrangements and UK-provided research funding.

8.30 Our hesitation about recommending the immediate establishment of joint-planning and funding arrangements on the Option 6 model relates to our wish to be satisfied that the safeguards described above could be met. Although some of us would nevertheless have been prepared to recommend that Option 6 should be put into effect without delay, we accept on balance as a Council that time will be required for necessary adjustments to be made. We are agreed that the move to joint funding, (as distinct from planning) should be conditional upon the achievement of:

(i) a satisfactory UK-based peer-review system for teaching and research in the Scottish universities;

(ii) adequate safeguards for the Scottish universities in relation to access to research council funding; and
(iii) agreement within the Government of a satisfactory transfer of funds from the DES to the Secretary of State for Scotland's expenditure block.

8.31 With regard to condition (i) in para 8.30, we recommend therefore that the Croham Committee should be invited to consider, in the course of its review of the UGC, ways in which continued access by the Scottish universities to a UK-based peer-review system might be secured in circumstances in which the administrative and funding responsibility for the Scottish universities were to be transferred from the Secretary of State for Education and Science to the Secretary of State for Scotland. In relation to condition (ii), we recommend that the ABRC should be invited to consider, in the light of the Croham review, what measures (if any) might be necessary in such circumstances to safeguard continued access by the Scottish universities to research council funds. Condition (iii) is a matter for the Government. We recommend that at the appropriate stage the necessary steps should be taken to ensure that a transfer of responsibility for the Scottish universities to the Secretary of State for Scotland is accompanied by a transfer of funds to the Scottish Office equivalent to the Scottish universities' present share of recurrent grant allocated to the universities throughout Great Britain.'

Croham on the Scottish Position

65. As the Croham Report[2] was published in February, 1987 it is possible to set out the main features of its comments on Scotland. These are contained in the following extracts:

'8.16 The Secretary of State for Scotland invited comment on STEAC's report by 27 March 1986. On 17 July 1986, the Secretary of State made a statement to the House of Commons, in which he accepted the Council's view that there was scope for improvement in the existing arrangements, but deferred a decision on the establishment of a body responsible for the planning and coordination of provision across both the university and the public sectors until such time as the Government could form a clear view of the future funding arrangements for the Scottish universities in the light of the advice sought from us in our additional remit. On 12 November 1986, the Advisory Board for the Research Councils gave the Secretary of State its views on the second of STEAC's conditions (see para 8.13 above), noting in particular that no additional measures were necessary to safeguard access by Scottish universities to research council funds.

8.18 The STEAC recommendations raise questions of a political, social and cultural nature which concern the totality of higher education in Scotland and its relevance to Scottish needs. But their adoption would have far-reaching consequences for the university system of the United Kingdom as a whole. We consider below, first, the UGC's position on the assumption that STEAC's proposals are not adopted; second, the implications of separate funding arrangements; and, third, the specific question addressed to us of peer review.'

'A Scottish Committee

8.19 We received from Scottish sources evidence which claimed that the UGC had failed sufficiently to take into account the differences between the English and Scottish systems, but when we inquired we were offered very few substantial examples of neglect or indifference. It is clear to us from the STEAC report however that, more than elsewhere in the United Kingdom, the Scottish universities do operate in a distinctive environment and serve Scottish needs, and that this needs explicit recognition. **On the assumption that a separate Scottish planning and funding body is not established, we recommended that the University Grants Council will set up a Scottish Committee.** The Committee's main functions would be to advise the Council on (i) particularly Scottish factors, including the implications of separate school examinations and of the Scottish pattern of 4-year honours degree courses, which ought to be taken into account in its advice to the Secretary of State on the financial needs of the universities and in resource allocation, and (ii) on the proposed resource distribution as it affected Scottish universities. The Scottish Education Department should be represented by an assessor on the Scottish Committee.'

'Implications of separate funding arrangements

8.20 In 1984-85 the Scottish universities contained 16.4 per cent of the full-time undergraduate and 11.5 per cent of postgraduate students in Great Britain. They received 15.6 per cent of the recurrent grant distributed by the UGC. In purely numerical terms, the effect of removing the Scottish universities from the UGC's responsibility would be much more pronounced in some subjects than in others: it would be most acutely felt in medicine. More generally, the distinctive features of the Scottish education system (set out in the foreword to STEAC's report) and the consequent differences in the courses provided by the Scottish universities provide a welcome element of diversity in British higher education. Whatever the advantages which might accrue from the separate planning and funding of higher education in Scotland, the main loss would be the UGC's present ability to provide an overview of university provision in Great Britain as a whole. But loss of the Scottish Universities would also affect the UGC's deliberations in lesser but nonetheless significant ways: it would no longer enjoy the special perspective which comes from access to the Scottish universities and from the contribution of its Scottish members, and the balance of provision in the grant list - for example between London, Oxford and Cambridge, and the provincial universities, and between North and South - would be altered.

8.21 In order to retain some of the benefits which now flow from the consideration of university provision in Great Britain as a whole, it is highly desirable that the University Grants Council and a Scottish planning and funding body, if one is created, should collaborate closely. **We recommend that there should be reciprocal arrangements on the lines which now operate for the NAB and ABRC, whether the respective representatives are described as assessors or observers, and it should be incumbent upon the UGC and a Scottish funding body to consult each other whenever a policy development might have a limiting effect on the mobility of students or staff or**

the pattern of UK provision in particular subjects. There might also be occasions, for example in the rationalization of provision, where joint working arrangements would be appropriate. This is especially the case where the Scottish institutions recruit substantial numbers of students from elsewhere in the United Kingdom, as in medicine and veterinary studies, but indeed in most subjects the research if not the teaching provision has a significance wider than its purely Scottish dimension.'

'Peer review

8.22 There is no single system of higher education peer review in the United Kingdom, but peer judgments come into play in different contexts and for different purposes. These include the certification of individuals as qualified to practise by professional bodies; the review of grant applications by the research councils and of articles for publication by academic journals; the validation of courses in the public sector by the Council for National Academic Awards;and the systems of external examiners operated in both the universities and the public sector. We have heard suggestions that peer review could be used more systematically not simply for the monitoring but also the enhancement of the quality of teaching and research. None of the above types of peer review need by affected by separate funding arrangements in Scotland.

8.23 The UGC's sub-committees were represented to us as another form of peer review, but the sub-committees have no separate legitimacy and the recommendations they make, for example in the course of visits to universities, carry weight in the last analysis because of the UGC's authority and funding powers.

8.24 In the latest resource allocation procedure, the sub-committees employed peer review for the rating of research quality, an innovation which we have commended. We would expect this approach to be continued and possibly amplified, though not necessarily using the same committee framework. It would be possible for UGC committees to continue to make judgments about Scottish University departments and pass them to a separate funding body. But the resource consequences would not be the same as they would with a single funding body. This is because of the way peer review ratings are used in the current resource allocation model, and are likely to be used in the future. They are in effect ratios applied to a sum which depends both on the total amount available for distribution throughout Great Britain and on the UGC's judgments as to the overall balance among subjects, the balance within subjects between teaching and research, and the balance between the different criteria on which research funding is assessed. The judgments of a separate Scottish funding agency would be likely to vary at every point, since that is one of the purposes of establishing it, and the ratings provided by UGC peer review cannot guarantee the parity of research funding which appeared to underlie the Scottish universities' concern about the STEAC proposals, although they might be of some use as performance indicators.'

66. The Croham analyses is clear, but is rather restrained. (It is notable that no recommendations on the preferable course of action are made: this has annoyed a number of Scottish politicians who support the STEAC Recommendations). Clearly the Croham Committee believe that if a Scottish Planning and Funding Council is established then in time the Scottish universities will become a separate system different from the university system in the rest of the UK. It is not possible to predict how the UK Government will now react on this issue, but the fact that the majority of the Scottish universities oppose the idea probably means that the Government will be cautious and will not move quickly.

67. The reason why so much material has been presented on the Scottish scene should be self evident. The applications to the Australian scene are set out below.

68. <u>Higher Education in Northern Ireland</u>

Soon after the Robbins Committee reported in 1963 the Lockwood Committee was established to advise on the application of the principles in the Robbins Report to the situation in Northern Ireland. It recommended that two new institutions should be established, namely, a Polytechnic formed from a number of existing institutions and an additional university, the New University of Ulster (NUU). Queen's University Belfast and these two new institutions together provided nearly all the higher education in Northern Ireland. Each of these was funded by the Department of Education, NI <u>after</u> it had received advice from the UGC. and the Department of Education and Science.

69. The Polytechnic was very successful and soon developed a range of high quality degree and sub degree programmes. But NUU was less successful and had considerable difficulty in attracting sufficient students. (This may have been due to the troubled political situation in NI during the past 18 years. Many NI students have chosen to go elsewhere in the U.K. for their higher education and there has not been a corresponding inflow to NI from the rest of the UK.)

70. It was apparent that there was a need to rationalize the higher education system. A Committee was established to advise on how this should be achieved. And having considered its advice the UK Government decided to merger the Polytechnic and NUU into a new type of university institution. This university, the University of Ulster, would operate on all the sites of the former institutions and would continue to offer all the sub degree work formerly offered by the Polytechnic.

71. The University was established in 1984. UU is unique in the UK in having such a range of work for no other university has this sort of sub degree work amongst its mainline courses. It is also unique in that the continuation of this work is written into its charter and the charter also requires the Council of the University to establish a largely external review, on a septennial basis, to assess the extent to which the University has been successful in realizing the objectives specified in the Charter. This review will advise the Council of the University of its findings and of any actions which it should take in the light of these findings.

72. Thus the Secretary of State for NI now has a funding responsibility for nearly all the higher education in NI He and the universities are determined that they shall be an integral part of the UK system of university. This is achieved by the funding to the two universities being determined on the advice of a Working Party of the UGC. The arrangements are described in the Croham Report(2) as follows:

73. '8.6 The Queen's University, Belfast and the University of Ulster are funded from the expenditure programme of the Department of Education, Northern Ireland (DENI), and not that of the DES. A change in the UGC's terms of reference in 1983 gave formal recognition to what had long in practice been the case, that the Secretary of State for Northern Ireland took advice from the UGC before deciding what grants to pay to the two universities in the Province.

8.7 At the same time, the UGC established a Northern Ireland Working Party (NIWP), with the following terms of reference:

> 'To advise the Main Committee, in consultation with the subject and other sub-committees, on carrying out its responsibilities for advising the Department of Education, Northern Ireland, on the coordinated planning and development of the universities in Northern Ireland and their funding.'

The Working Party consists of three UGC members, one of whom takes the chairman, three members from Northern Ireland, and two members with close knowledge of public sector higher education in Great Britain. An officer of the NAB acts as adviser, there are two assessors from DENI, and the UGC provides the secretariat...and the Working Party was established initially for a period of three years, but its life was extended by a further year, pending the outcome of our review.

8.8 Since the merger of The New University of Ulster and the Ulster Polytechnic in 1984, virtually all higher education provision in Northern Ireland has been made in the two universities. The University of Ulster has a much wider range of provision than any other UK university, including non-degree courses. Although it will be some years before a final judgment can be reached on the outcome of the organizational changes of the last few years, we were impressed by the regard in which the two universities were held in the Province and by their manifest importance in its economy.

8.9 The funding policy currently adopted by DENI is parity of treatment with the universities of Great Britain. This creates a timing difficulty. Because the UGC cannot determine the allocations to British universities and therefore the analogous allocations to the two Northern Ireland universities until it knows the total sum made available for distribution as grant by the Department of Education and Science, DENI can never be sure until late in the day

that the provision made within its own expenditure programme will be sufficient. (Our proposal for a longer period of funding will merely convert this from an annual to a triennial problem.) If the UGC's recommended allocations ever exceeded DENI's ability or willingness to pay, the present system would come under strain. As it is, **the funding arrangements for the universities of Northern Ireland appear to work well, and we propose no change.** Three conditions are necessary for their continued successful operation:

(i) maintenance of the policy of parity, because the UGC could not readily offer comparable advice on funding if the general criteria used were to differ substantially between Great Britain and Northern Ireland, although funding should take account of any circumstances peculiar to the two institutions;

(ii) acceptance of the UGC's recommendations. If DENI were significantly to vary the recommended allocations, upwards or downwards, other than for special factors peculiar to the Province such as additional costs imposed by security considerations, it would become increasingly difficult for the UGC to continue to offer advice on a comparable basis; and

(iii) continuation of the close working relationships achieved at officer level between DENI and the UGC, and between the UGC and the two universities.

8.10 The Northern Ireland Working Party both lies outside the mainstream of the UGC's activities and has an atypical regional orientation. It acts not only as adviser to the Main Committee, on the allocation of resources to the two Northern Ireland universities, but also seeks to achieve coordinated development of provision between the institutions. It represents a heavy commitment of the UGC's staff time for just two institutions. Since the NIWP has no more power than does the UGC it depends for its operation on retaining the confidence of the two universities. On the basis of the UGC's present approach to funding, there is no strong reason on its part for retaining the NIWP; indeed, the more firmly the policy of parity is pursued, the weaker the case for a separate Working Party. On the other hand, we found that the NIWP is highly valued in Northern Ireland, and, if the UGC were to adopt a more explicitly institutional approach as we have recommended, its value might increase. **We recommend that a Northern Ireland Working Party remain in being** so long as it enjoys the consent of the two universities; it can convince the Council that it has a job to do; and the UGC can afford the staff and other resources to support it. As with all the UGC's committees, specific provision should be made for the periodic review of the NIWP. Its present composition, including three Main Committee members, could not however be maintained with a smaller Council.'

74. The planning and funding model is an interesting one in which the Secretary of State for NI who has the responsibility for the system chooses to act on the basis of advice from the UGC which advises a GB Secretary of State. However as para 8.9 of Croham shows although the system works well at present this would not continue to be so if the Secretary of State for NI choose to exercise his responsibilities in an alternative fashion.

75. The main interest for this Conference in the NI position lies in the special nature of UU and the safeguards which have been devised to ensure that it does not depart from the objectives specified in its Charter.

The 'Private' University Sector in the UK

76. On account of the interest being shown in Australia in the establishment of a private university sector it is worth noting, very briefly, that the private sector in the UK is very small. The University of Buckingham is the only university in the UK which does not receive grants from the UGC or a Secretary of State. But it only provides education for a few hundred students and thus is negligible in practice, though not in principle. From time to time there is discussion about the establishment of other private universities and it is always possible that one or more of these may be established at some time in the future.

77. In addition to this a number of American higher education establishments have branches in the UK.

Higher Education in Hong Kong

78. The system in Hong Kong illustrates yet another way of planning a binary system. There is a single planning and funding body for higher education in Hong Kong entitled the University and Polytechnic Grants Committee (UPGC). Until less than a decade ago there were no degree courses in the non university sector (though some professional courses were recognized as being of degree equivalent standard). The UPGC then decided to permit a strictly controlled development of degree courses to occur in Hong Kong Polytechnic and later in City Polytechnic HK and Baptist College HK. The UPGC were determined that degree work should not become the main work of the Polytechnics, their main work was to be sub-degree work. But the degree work was to grow to about 20% of the whole.

79. The UPGC exercised a detailed planning control over the aims, objectives and nature of each proposed course.

80. The UPGC then asked the CNAA to advise it whether each proposed course was of an academic standard which would be sufficient for the CNAA to approve it if it had been submitted by a UK institution. Using its normal methods the CNAA undertakes this work and advises the UPGC on the conditions which should be satisfied in each case before the course is approved by the UPGC.

81. Following the successful operation of this scheme a number of Degrees and Honours Degrees have been approved: Some of these are available in sandwich and part-time modes.

82. CNAA urged that research must be developed in the two Polytechnics and the Baptist College. The UPGC set up a committee to advise it on the whole question of the development of research in higher education in Hong Kong and it now seems very likely that funded research will be authorized in the Polytechnics and the College.

83. Steps are now being taken to establish a Hong Kong based Committee for Academic awards. This will exercise the role which has been performed by CNAA, though it is anticipated that CNAA will assist the Committee for some time.

84. Hong Kong also has a private sector. There are no degree courses offered in most of the private sector. But through the Open College in Hong Kong it is possible to obtain a degree of the University of East Asia.

85. Thus the UPGC operates a unified planning and funding system which, through detailed course control, ensures that while there is an overlap at degree level between the courses in the university and non university sectors the distinctive role of the latter sector in sub degree and professional work is not allowed to become weaker.

RESEARCH AND POST GRADUATE EDUCATION

86. A number of references have already been made above to research post graduate education and their funding. During the past decade these issues have been extensively discussed in the UK and elsewhere. However in the UK post graduate education at master and doctor levels is widespread in the non university sector and thus whether such work should be undertaken in the non university sector has not been one of the central issues. But research and its funding has been a burning issue which has been a part of all the reviews referred to above. The nature of the discussion can be gauged from the following extracts.

Leverhulme

87. Chapter 7 of the Leverhulme Report contains:

> 'Institutions of higher education contribute directly to the national capacity for fundamental and applied research and train the next generation of researchers. In doing so they contribute to the solution of social and economic problems and help in the attainment of other cultural objectives. There are doubts whether these functions are at present being performed as well as they ought to be; mechanisms of research finance which were established in a period of expansion and economic buoyancy may not be well adapted to present and future needs. ....'

88. 'On the central issue of whether research and good undergraduate teaching are indivisible (the Leverhulme volume on the Research Seminar) The Future of Research is agnostic. .....The book draws the conclusion that a clearer conceptual separation of the teaching and research functions would help to protect research. It recommends that university funding should distinguish between undergraduate teaching and general support of scholarship on the one hand and post graduate teaching and research on the other. It suggests specifically that the funding of research should be linked in part to designated research centres at each institution; and in making general grants funding bodies should be influenced by success in obtaining specific project funds. ....'

89. 'It is doubtful, however, whether the distinction between universities and other institutions provides clear guidance on institutions where research should be encouraged. The Future of Research endorses the concept of polytechnics having a special role in applied research and recommends that each polytechnic should have an explicit research policy.'

National Advisory Board

90. In 1983 NAB issued a document on The Funding of Research Activity in the local authority sector of higher education in England(8). This document defined updating study, research, consultancy and described the current provision in the sector. It then sets out possibilities for a funding policy for research.

'16. Any policy must treat updating study and research separately, for the former is applicable to all staff in all institutions while the latter is not. Any funding arrangements to cover updating study would therefore have to be applied universally while a similar arrangement covering research would require a selective approach.
21. A ..... well-founded complaint from those undertaking research in the local authority sector is that in contrast to the universities the present system of funding does not provide an adequate research base .... from which successful applications to both private and public grant organizations can be made. An appropriate use of NAB funding would therefore be to fulfil a pump-priming function by providing institutions with a minimum threshold of resources for research.
22. (iii) Allocation of funds. Given that a selective approach is to be adopted which institutions should be eligible for selection. .....One approach would be to accept the principle of open application but to establish criteria which would ensure that only institutions with a serious research function were considered.
(iv) Evaluation. Any institution receiving NAB research fund would be required to report on their use and the benefits in terms of research activity and output. In turn however it would be necessary for the funds to be guaranteed for a certain period of time, say 3 years. It would be unfair given the nature of the research process to require an evaluation any earlier.'

91. In 1984 NAB recommended the adoption of a policy based on these ideas as part of its strategic advice to the Secretary of State for Education and Science.

92. In 1983 Christopher Ball, Chairman of the Board of NAB, presented a paper (9) which contained the following section: 'A consensus is beginning to emerge which:

(a) defends the dual support system for funding research, but
(b) recognizes a role for applied research in major local authority institutions such as Polytechnics, and
(c) proposes that research funding should (both between institutions and within institutions) be <u>explicit</u>, <u>selective</u> and <u>earmarked</u>. According to this model, institutions (which did not already have them) would need to set up Research Committees to distribute selectively the separately identified research funds, and to monitor the outcome. And funding bodies (the UGC and NAB) would be required to identify the level of research support given to each institution, explain the grounds of selectivity, and review the results. The most important change proposed, however, would be the clear separation of the teaching and research function, and the separate funding of each.'

93. The extent to which this has been followed may be judged by the following further extracts.

The Green Paper

94. Chapter 5 of the Green Paper (6) dealt with research and post graduate education. The following paras are especially relevant.

'5.1 Higher education institutions exist for scholarship and research - in all disciplines - as well as for teaching. The universities have, and will retain, the chief role within higher education in basic or fundamental research; they, and also the polytechnics and other institutions, undertake applied research directed towards industry, commerce and the public services. All institutions may seek research council money for specific projects; for the universities alone the 'dual support system' provides an element for research within the block grants made by the UGC...'

'5.3 The Government's aim is that the contribution of the higher education system to the nation's research effort shall continue on about the present scale...'

'5.4 Both quality and economy argue for some concentration of research activity - particularly where expensive equipment is needed and concentration implies selectivity. There is a debate about whether research and teaching need to be carried out together. The UGC argues that research stimulates the teaching of able students; but there is no evidence that all academic staff must engage in research. Some excellent teachers, in all types of institutions, have little or no personal research commitment scholarship; but, just as institutions properly have different mixes of teaching and scholarship, so will departments and individuals.

'5.7 Greater concentration and selectivity may mean that some departments or even whole universities will lose research funding from the UGC. Universities will still have discretion over the funds at their disposal, and be able to seek research funds from other sources. Research will be a consideration in the necessary process of rationalization.

5.8 Some research, of high quality and almost wholly of applied character, is quite properly done in public sector institutions. The Secretary of State for Education and Science has approved the NAB's proposal that £2.5 million from the funds available for local authority higher education in England in 1985-86 should be deployed selectively in support of research.'

Views of the Secretary of State (Sir Keith Joseph)

95. The policy in para 5.7 is stark and arresting. Yet the Secretary of State for Education and Science was uncompromising on this matter when he spoke on the Green Paper at a Conference on 9 July 1985 (see (10)).

He said '....Preservation of standards in quality and examinations is something which, under present arrangements, I can only urge the universities to tackle for themselves. But I shall ask them with increasing frequency to demonstrate to me that they are doing so.

The preservation and enhancement of quality in research is an area in which the Government, the research councils and the UGC all have a role. I have particularly welcomed and encouraged the UGC's decision to be more selective in the allocation of research funding

and I am prepared to see that process of selectivity be very rigorous indeed. I acknowledge the concern of those who say that there is no sure way of predicting the winners in research and that, as Sir Rudolf Peierls said in The Times recently, although we may study form we must also try to keep our stable broad. I recognize therefore the the process of selectivity will be very gradual, and although I see no inherent contradiction in the concept of a university which is primarily a teaching institution - keeping of course abreast of the latest scholarship. I acknowledge that the UGC wishes to avoid that outcome. At the same time resource constraints mean that choices have to be made as to scope and coverage which may be more acute than they have been hitherto'.

96. The principal statements of interest from the STEAC Review has already been given above on pp 114 and 115 para 5.21 and 5.44.

The Croham Report

97. There is an interesting description of the Research allocation process used by the UGC in the Croham Report (2).

97.1 '3.40 The UGC has adopted a new procedure for the calculation of the recurrent grants payable to universities in 1986-87 and the three subsequent years of its chosen planning period. The implementation of the procedure, the first stage of which culminated in the grant letters issued on 20 May 1986, occupied the UGC, its sub-committees and its secretariat for much of the lifetime of our review, to the exclusion of almost all other activities.'

'3.41 The adoption of a new approach to the determination of universities' allocations was foreshadowed in the UCG's Strategy document of September 1984 (University Grants Committee: A Strategy for Higher Education into the 1990s, HMSO, September 1984). The underlying principles were described in a letter to universities in May 1985 (UGC Circular Letter 12/85: Planning for the Late 1980s, 9 May 1985), which requested from them information about their academic and financial plans for the four years ahead, and in more detail in a further letter of November 1985 (UGC Circular Letter 22/85: Planning for the late 1980s: The Resource Allocation Process, 19 November 1985).'

'3.42 Leaving aside the treatment of special factors, such as the presence in a university of a museum or library of national importance, the key principles on which a university's grant is now calculated are as follows;

(i) the bulk of the grant is determined by the number of students a university is expected to admit, with the amount of funds per student varying between subjects but not between institutions; and
(ii) additional funds are allocated selectively based on explicit assessments of the quality of their research subject by subject, and their success in attracting external research funding.

In order to calculate the amount to be allocated to each university, the UGC first determined 'pots of gold' attributable to each of 37 groups of subjects (cost centres) by reference to the historical distribution of costs in aggregate. The relative weights given to some subjects notably engineering, were adjusted at a later stage in the exercise. Each 'pot of gold' was divided between resources

notionally attributed to expenditure on teaching and on research. (Central costs were dispersed by formula among cost centres, so that each 'pot of gold' carried an overhead component.) The teaching element was distributed according to principle (i) above, once student numbers had been allocated to universities. The research element was allocated in differing proportions according to the cost centre, partly in proportion to student numbers, and partly by reference to principle (ii) above. The outcome of all cases was a block grant to each university, being the aggregate of the different cost centre calculations. While universities were informed of the assumptions about the student numbers and the research assessments underlying their grant, the grant figures themselves were not disaggregated.'

'3.43 To date, only the grant allocations for 1986-87 have been announced, but the exercise was conducted with a view of the distribution of resources at the end of the planning period (1989-90), with the basic block grant for the intermediate years being arrived at by a process of interpolation. The effect of the decisions taken was that the resources for 1989-90 to which the new procedures applies would be allocated on the various criteria, as follows:

	Per cent
Teaching	61.2
Research:	
grant related	5.2
contract income	0.7
'floor'	14.8
selective	14.1
Special factors:	
departmental	2.0
non-departmental	2.0
Total relevant resources for 1989-90	100.0'

'3.44 A university whose costs are historically low or whose research is of high quality gains from the new methodology relative to other universities, but, because the outcome depends on numerous decisions taken separately for each cost centre and on their interaction, the scale of the redistribution likely to occur could not be fully assessed in advance. In practice, the redistributive effect was constrained by decisions taken by the Main Committee early in the procedure, notably that there should be no major shifts of student numbers between institutions or between subjects (with exceptions in teacher training, business and management studies and dentistry). In addition, for 1986-87, the rule was applied that no university should face in real terms a reduction in grant which was more than 1.5 per cent below the average reduction of all universities. Eleven institutions fell into this 'safety net', which was paid for by reducing on a pro rata basis the grant paid to institutions which did better than average on the initial calculation.'

'3.45 In chapter 6, we return to some of the implications of the introduction of more explicit selectivity in the calculation of that part of the recurrent grant attributable to research expenditure, and to the complaint that the methodology ought to exercise explicit selectivity in relation to teaching as well as research. In general terms, we welcome the new methodology as an important step towards the more rational and more open allocation of public funds

to the universities and we regard its introduction within a comparatively short time-scale as a major achievement by the UGC.'

97.2 '6.2 The research element of the recurrent grant is one side of the policy of 'dual support' for research in the universities; the other side is met by research income, including grants and postgraduate awards made by the research councils. Increasing sums are also being spent by industry in research contracts placed in the universities. (A full account of the dual support system is given in the Merrison report, Report of a Joint Working Party on the Support of University Scientific Research, Cmnd 8567, June 1982.) We heard from different quarters concern about the United Kingdom's ability to compete internationally in scientific research, and a concomitant view that, not only should national expenditure on research be increased in absolute terms, but that research expenditure should be more carefully husbanded and applied selectively, favouring areas which offer long-term prospects for commercial exploitation.'

'6.3 These matters raise questions about the management of national research policy which are beyond our terms of reference. A much greater proportion of support for university research in the scientific subjects could be channelled through the research councils, and the element payable as part of recurrent grant correspondingly reduced. But to do so could seriously reduce the research funds available for younger and less well-known staff. Moreover, academic planning within the universities, including the planning of their undergraduate and postgraduate courses and of their fundamental research effort, should be undertaken as a whole within a consistent policy framework. This does not mean that all universities should divide their efforts between teaching and research in the same proportions. Indeed we can envisage a situation in the future in which some departments in some universities would undertake relatively little research.'

'6.4 In the assessment of recurrent grant for the planning period up to 1989-90, the UGC for the first time calculated separately the resources attributable to universities' expenditure on teaching and on research, and introduced into the research calculation an explicit judgment of quality for each of the 37 groups of subjects classified as cost centres, and in some cases for individual university departments. The rating of costs centres was undertaken by the UGC's subject sub-committees. The precise mechanisms used by the sub-committees differed, but the basis in each case was the sub-committee's judgment, taking into account both past performance and future potential.'

'6.5 On a conservative estimate, the exercise of research selectivity occupied about 12 man-years of member and officer time. About 14 per cent of the total resources included in the UGC's calculations were allocated in ways which depended on the sub-committees; research ratings, and this part of the resource allocation exercise resulted in a net movement by the end of the planning period of just of 1 per cent of total resources among universities. The input of effort may appear disproportionate to the scale of the effect it had on the eventual grant allocations, but the exercise was important in establishing acceptance of the principle and practice of selectivity. In this it was successful and selectivity may in future years underpin larger transfers of resources. Without such selectivity, the pressure will increase for funding to be transferred to other channels.'

'6.6 Given that the payments to universities are in the form of block grants undifferentiated as between teaching and research, and that the information provided to universities is limited about the financial implications of the research ratings, it remains to be seen how far the UGC's judgments will be followed through in the allocations to individual departments made by universities themselves. As the costs of scientific research mount and as more emphasis is placed on the identification of national areas of priority, it is inevitable that evidence will be required of the selective management of the public funding of research, by both the UGC and the universities themselves.'

Summary

98. The significance of these changes in research funding for the future of the UK higher education system should not be underestimated. An obvious deduction from para 6.5 of the Croham Report is that the former method by which the UGC provided research monies to the universities was no longer acceptable and that unless the method was changed the monies would be removed from the UGC and allocated through some alternative channels. Now that this change has been made it is very unlikely that there will be a return to the former method. Indeed there is a high probability that the selectivity may become much greater in time and that some departments will be recognized as largely teaching departments. (The main criticisms have been about the methods used by the UGC to assess the research standing of departments. Although there have been some worries about the possible effects of the change most have accepted that change was necessary). Alongside these changes in universities there are also the changes taking place in the funding of research in the non-university institutions. Some of them are now receiving research monies from NAB. Although the amount of money at present is small, (£6.5M for 1987/88) the principle of funding research in some non university institutions in England has been conceded, and the amount will grow through time. Similar changes will happen in Scotland. it is also noteworthy that when special initiatives are now taken (eg in Information Technology or in Biotechnology) that the non university institutions have a major share in them. Thus these various changes are probably the beginning of an important move towards narrowing the funding differences between the sectors in Research and post graduate education.

OPTIONS FOR THE FUTURE - FACTORS TO BE TAKEN INTO ACCOUNT

99. Having looked in some detail at recent changes in the UK and Hong Kong it is now appropriate to locate factors, criteria or principles which will be useful in analysing and judging between the options for the future in Australia. A number of these factors have already been set out above. Thus Attachment I is relevant at the level of the general objectives of a higher education system. This comments on the Robbins objectives and adds a further objective on continuing education and training. It rephrases the access axiom into 'courses of higher education should be available for all who are able to benefit from them and who wish to do so'. Moreover it states that the present diversity of provision in the system must be maintained. In doing so it stresses that high education has key roles to play in meeting the needs of society and also meeting the aspirations of individuals.

100. The essentials of these statements are likely to be endorsed by all

members of this Conference. Indeed the only thing which the author of this paper found to be surprising in his reading of recent Australian documents on the objectives for a higher education system is the relative lack of attention to the importance of continuing education and training.

101. But, in themselves, such statements do not greatly assist one to discriminate between the various options for the future. This is because they are too general to really assist in making decisions between structural options. A position along these lines has been powerfully argued by Burton Clark (11) in a paper for one of the Leverhulme seminars entitled Governing the Higher Education System. He also stressed that we are more likely to get helpful guidance by looking at statements which more explicitly relate to the course level. And the author of this paper believes it is also profitable to look at statements which take account of the political dimension. Here the criteria of para 6.6 of the STEAC Report are helpful : See para 57, p 115.

102. Attention is drawn particularly to the first and last of the criteria. In the former reference is made to the distinctive characteristics of the courses in the non-university sector. This is a part of the wider question of the diversity in the entire higher education system and in looking at the options for the future it will be necessary to consider if binary systems do indeed result in greater diversity in the system as a whole.

103. In the latter criterion reference is made to any reorganization not being dependent on substantial additional resources. This is especially significant in the UK context. Political realism suggests that it is also likely to be significant in Australia at the Commonwealth level and probably also at the level of the States. Even if additional money could be found for public expenditure it is far from clear that the political decision would be made to allocate sufficient of it to higher education simply to bring the funding levels in some of the non-university institutions up to those in the university sector. So attention must be paid to this criterion in looking at the options for the future.

104. Some other criteria are suggested by the following paras from the Croham Report (2):

'2.9 Where the universities have chosen to operate collectively, they have done so on a United Kingdom basis. The universities in the United Kingdom see themselves as belonging to a national system with common standards and full mobility of students and staff, even though the universities of Scotland, Wales and Northern Ireland operate within educational, economic and political frameworks which are in a number of respects distinctive. It is proper to place some aspects of the universities' activities, notably the higher reaches of scholarship and research, in a wider, international context; equally, all universities respond to local and regional needs, and may increasingly do so in developing provision for continuing education and in some of their links with industry. But the primary focus is national. Whatever the funding arrangements, they should not inhibit the passage of students and staff among the universities of the United Kingdom, nor the ability of universities throughout the United Kingdom to compete and to co-operate with each other.

''2.22 Expenditure on this scale, parallelled by increasing support for the polytechnics and other public sector institutions, has been undertaken by successive governments because they have accepted a responsibility to secure the provision of higher education. At any given time the Government is likely to have a number of policy objectives it wishes to pursue by means of its expenditure in the universities. Policy objectives may be general - providing higher education places in accordance with the Robbins principle as reformulated in the higher Education Green Paper - or they may be quite specific, as in the case of the Information Technology Initiative. In recent years, the Government has adopted the mechanism of published 'letters of guidance' to the UGC as a means of communicating its policy objectives, but the criticism may fairly be made that at certain times it has not articulated clearly enough its expectations of the universities. **The Government ought to state clearly its broad policy objectives in the interest both of effective management of the university system and of public understanding.'**

'2.45 It was argued to us that the division between the universities and the public sector is confusing both to employers and to potential students; that it inhibits effective planning of higher education; and that it would be healthier if individual institutions were judged on their merits, rather than classified according to their ownership and funding. However, the separate organizational structure and the separate traditions which have been built up particularly over the last 30 years cannot lightly be set aside. Only a major political decision could abolish the binary line.'

'Nevertheless, the Government does have a responsibility to form a view about the size of funding and the objectives for the tertiary sector of education, for the education system as a whole and indeed the interrelations of the education system with all aspects of life in the community.'

'5.6 Because the determination of the overall level of funding is dependent upon an interaction between the Government and the UGC (as well as upon negotiation within Government in the context of the Public Expenditure Survey), the Secretary of State has a twofold responsibility: in the first instance to set by means of guidelines the framework within which the UGC and the universities can draw up proposals for the coming triennium, and subsequently, with the levels of funding for the three years ahead are announced, to indicate the assumptions on which the Government has made its calculations and the policy objectives it intends should be pursued. In both cases, the Government's views should be made available in public documents. **It is important for orderly planning that the Government's guidelines, which will constitute the trigger for the cycle of advice and allocation, are given well in advance and for the efficient management of public resources that its later announcement of grant is made in good time for the plans of the universities and the UGC to be given effect.'**

105. These extracts could be parallelled by comparable ones about the non-university system. Thus, this is frequently referred to as a national system locally administered. Again through the NAB process of planning the three principal groups (viz central Government, local Government and academic interests) are brought together into one arena.

106. The criteria which these quotations suggest for the UK are threefold:

106.1 Firstly, higher education is national in its focus, but rightly also takes account of distinctive features in Scotland, Wales and Northern Ireland and in other more regional or local contexts.

106.2 Secondly, central government has the responsibility to clearly state its views on the policy objectives and the levels of funding for higher education.

106.3 Thirdly, major structural changes regarding the higher education system as a whole or institutions within it will require the approval of central government.

107. The first two of these criteria do not require discussion: the third one merits some further remarks. Thus the decision to establish the University of Ulster by merging the New University of Ulster and the Ulster Polytechnic was taken by the central government of the UK. Likewise any decision to establish a Scottish planning and funding body as proposed by STEAC will be taken by the central government of the UK. Both these are true even though Scotland and Northern Ireland have special positions within the UK.

108. The possible implications of the criteria to options in Australia will be considered below.

109. Finally it is worth concluding this section by observing that sometimes some of the above factors will press decision makers in different directions. For example, a principle stressing easy access for part time study in a wide spread geographical area of low population density and difficult travel conditions suggests considerable dispersal of small institutions. But, in the same circumstances, a principle of high quality staffing and equipment suggests the need to concentrate the provision in few larger institutions. Hence the factors, criteria or principles set out above will assist the decision makers to take decisions within a clearly understood framework but they will not make the exercise of judgment redundant.

110. These last points and other related points are also made in Chapter I of the Report of the Review of Efficiency and Effectiveness in Higher Education (12). Thus in no sense does the above discussion of factors to be taken into consideration claim to be a comprehensive one.

OPTIONS FOR THE FUTURE IN AUSTRALIA

111. In considering options for the future one should logically consider the status quo option. However this can be quickly set aside for the Reports and Statements (12) to (15) all propose changes which are significant to a greater or lesser extent. The real arguments are about <u>what</u> changes are necessary and desirable and about <u>how</u> these should be brought about in an orderly fashion to yield the greatest benefits to Australia and the States.

112. Having set the status quo option aside there are several options set out in (12) to (15) to be considered. It would not be difficult to develop additional variants on these options and then

to become immersed in a very detailed consideration of the fine differences between some of the options. But it seems desirable to adopt a broad brush approach and to group the options into three categories and discuss them on their merits and in their own terms and contexts and against the international background set out above.

113. The three categories which will be used are as follows:

I To move on a Commonwealth basis to a unitary system of Higher Education.

II To modify the binary system of Higher Education on a state by state basis.

III To modify the binary system of Higher Education on a Commonwealth basis.

114. Each of these three categories will now be discussed in turn.

A Unitary System of Higher Education

115. This option is forcefully advocated and argued by ACDP in their statement of 25 July 1986 'Higher Education - A Single, Diverse System' (15).

116. The arguments are that

(a) the binary system is outdated, and increasingly irrelevant and inefficient;
(b) there are increasing overlaps in the provision between the two sectors and these overlaps are also ones of quality of the education provided;
(c) titles are the only things which really distinguish between some of the institutions in the two sectors;
(d) each institution in the proposed unitary system should have its own mission statement agreed by CTEC;
(e) this would allow staff expertise in research to be fully utilized; and
(f) the present differentiated treatment in financial terms is unfair.

117. The counter arguments elsewhere in other documents can be summarized as follows:

(a) is simply asserted and is not accepted as proven;
(b) the fact of the overlap is accepted, but this is not recognized as an argument in support of ending the binary system (indeed para 1.6 of (14) argues that the overlap in functions, activities and outcomes creates a positive stimulus to development in each of the sectors);
(c) This argument is strongly refuted in Chapter 6 of the Review of Efficiency and Effectiveness (see in particular paras 6.5 to 6.11);
(d) the practicality of this approach is called into question in para 1.6 of (14) where it is stated that '... a unitary approach will not provide a rational basis for resource allocation and ordered development of post secondary education'. Again Barker (16) sees the possibility of 'fragmentation of higher education into several small clusters or sectors of differing status'.

(e) and (f) these arguments would be conceded (at least in part) but it would be stated that the proposed change to a unitary system is not necessary to overcome these felt difficulties.

118. If one now looks at this option in the light of the international material set out in the earlier part of this paper five additional points are suggested.

119. Firstly, there would still be a line in post secondary education between the nearly created unitary system of higher education and the TAFE sector. This might tend to widen the distance between TAFE and the rest of post secondary education while the need is for this distance to be reduced for the reasons set out in the Report of the Review of Efficiency and Effectiveness.

120. Secondly, there are a cluster of questions of the following types: Would a unitary system encourage the retention of the current rich diversity of provision in the binary system? Would it improve access for those types of students who are presently under-represented in higher education?

121. Undoubtedly all believe in diversity. For example, para 2.6 of the Croham Report contains the following:

> 'The interests of the nation lie in a higher education system which has the flexibility to recognize changes in need and to respond to them as they arise. The more diversity there is in the system, the more flexible it is likely to be. It is important therefore that funding strategies do not depend upon a single model of what a university should be, but encourage diversity.'

122. But there is clearly a strongly held belief in the UK and Hong Kong that a unitary system of higher education might drift away from sub-degree work, from part time courses and from encouraging access. This belief is founded on the view that the value systems in universities are different from those in the non-university institutions. This is illustrated by the facts that the latter institutions, in these countries, have a better record of admitting students to degree courses on the basis of qualifications other than the standard school leaving ones, they offer more degree courses by part-time study than do the universities and they offer sub-degree courses by all modes of study.

123. Scott (1) on p 35 has the following passage.

> 'The Robbins committee was supporting the right of individual institutions to make their destiny without artificial restriction; in this way they hoped to create a measure of pluralism within the broad framework of the university as an institution. Mr Crosland, on the other hand, insisted that diversity must be maintained across the system by allocating different roles to different sets of institutions, precisely because he feared that diversity in the Robbins' sense would lead to a gravitation, or even regression, towards the traditional university pattern. So it is important to be clear which version of 'diversity' it is intended to encourage. In fact there can be little doubt that it must be the latter, system-wide, diversity rather than the autonomous institution-based variety..... As the diversity of the needs that higher education

must meet and the demands that will be placed upon it is bound to increase still further during the 1980s and 1990s, the need for a more diverse system will also increase match this heterogeneity. It is unrealistic to expect that from an undifferentiated mass of higher education institutions each one can hope to match its own ambitions to external needs in a way which makes sense across the system. So the need for planned diversity seems clear. However, it is only possible to plan to create the conditions for diversity not diversity itself. National higher education policy should confine itself to constructing broad sectoral boundaries as the minimum preconditions of system-wide diversity, but within them it should pursue policies of course control and resource collection which stimulate rather than stifle the initiative of individual institutions.'

124. Attention is also directed to the views of Sir Bruce Williams para 33 p 108.

125. Based on all of this one must doubt if a unitary system would really be better in respect of the issues raised in para 120 than the binary system. At present the balance of arguments is that it would not.

126. Thirdly, a national policy on the use of university titles and funding would be necessary. It seems certain that this would result in the recreation of a university sub-set of institutions within the proposed unitary system. Thus the first step towards the fragmentation mentioned by Barker would soon occur.

127. Fourthly, it is very unlikely that sufficient additional money would be found to enable some of the existing CAEs to be funded on university norms and thus the proposed unitary system is unlikely to achieve what ACDP expect.

128. Fifthly, in other binary systems progress is now being made towards the funding of research in the non university institutions. (This aspect is considered further in Option III below).

129. Thus the international viewpoints set out above indicate that the suggested route is not the most appropriate way of organizing the Australian system of the future. But they also suggest that if ACDP are really saying 'our staff are capable of undertaking high quality research of value to the States and the Commonwealth and they should be funded for this purpose', then there are ways of revising the operation of the binary system to make this possible and that a move to a unitary system is unnecessary.

Option II - The Binary System Modified on a State by State Basis

130. This option is illustrated by the situation in WA where by State action the former WAIT has been transformed into a University of Technology. The arguments in support of this situation were presented by the Minister for Education of WA in a Conference address in the following terms:

(a) the binary system does not meet the realities of the higher education system in Western Australia which is really trinary;
(b) the binary system is flawed by the overlaps between the provision in the university and CAE sectors;

(c) research funding for universities on the present basis is irrational and results in a waste of money;
(d) the present system of research funding does not enable education to be harnessed sufficiently to help economic development in WA, not enough money is available for applied research and WAIT was in a straight jacket;
(e) the funding differentials are biassed too much in favour of the universities;
(f) the Commonwealth was obdurate and would not pay attention to the WA views;
(g) WA used its State powers to designate a University of Technology which will have higher status than a CAE and lower status than a university. WA hopes this will force the Commonwealth to introduce a three level system of funding in WA which would be more discriminatory; and
(h) WA was not seeking to start a national debate on the future of the binary system - it was only trying to get movement for WA.

131. Again counter arguments/statements may be summarized as:

(a) It is not self evidently obvious that the four higher education institutions in the State do fit into a trinary funding pattern;
(b) see above under Option I;
(c)(d)(e) and (f) These may be true, but the chosen solution was not necessary to achieve the desired ends and in fact may make it more difficult to attain these ends for it may harden attitudes at the Commonwealth level. (See for example p (5) of (13) which contains the following: 'Those who seek massive resource increases without proper planning, who seek status for themselves before the interests of the communities they have been established to serve, who expect the Commonwealth to reward with increased funding their self-serving propositions and who seek to disrupt the orderly, efficient process of tertiary education in Australia have no relevance to this Government's deliberations' or paras 6.22 and 6.23 of (12) where forthright opposition is stated in entirely unequivocal terms);
(g) the Commonwealth is not prepared to introduce a trinary system of funding and if it were that might not be in the best interests of Australian higher education (see below);
(h) in fact this Conference is part of a national debate on the future of the binary system. Such a debate was inevitable once WA took its action to create a university of technology.

132. And more generally one must add that it is not obvious that the step taken by the State Government will improve the education provided to students nor maintain the current diversity of provision in the longer term.

133. In the same Conference Address the Minister for Education WA also spoke of his interest in exploring the possibility of the higher education monies being transferred to the State for division amongst the institutions and of the desirability of the Commonwealth now taking a very active lead in major discussions of the future of Australian higher education.

134. Again looking at these suggestions and the position in WA from an international viewpoint there are a number of additional points to be made.

135. Firstly, there are parts of the world which do have a formally tiered system of universities in which some of the universities in the system do not operate at the full range of university levels, eg not at the doctoral level. But such systems have been introduced after full and extensive debate and on the basis of well published and understood criteria. Any move to introduce such a system in Australia should be preceded by a full discussion of all the implications of the introduction of a such a policy. Such a discussion should be lead from the Commonwealth level, unless Australia wishes to see its national system fragmented into a number of disparate state system. Inter alia the discussion would need to take full account of the international precedents, of the potential advantages and disadvantages (including whether the introduction of new types of universities would serve students better than the existing institutions), and of the criteria by which the new universities would be distinguished and funded. As such a discussion has not been held and as satisfactory answers cannot be given to the points raised in the preceding sentence, it is not surprising that the action of the Government of WA (although it is entirely proper constitutionally) is not being welcomed at the Commonwealth level. Further the Minister for Education for WA criticizes the system of funding research in the existing universities and it has been shown above that the research funding system in the UK is being changed significantly. It is essential to consider the potential consequences of such changes before decisions to introduce new types of institution are made. So the change in WA could be seen to be hasty and not fully worked out by those who believe that rational debate should induce change; on the other hand it could be seen to be inevitable and necessary by those who believe that rational debate was not possible. (Further comments are made on research funding in Option III below.)

136. Secondly, the model of monies being transferred from the Commonwealth to the State for division at State level is analogous to that suggested in the STEAC Report (see para 63, p 119). The opposition of the majority of the Scottish Universities to the model has been set out together with the view that if the model is introduced in Scotland then, in time, the universities in Scotland will become a separate system and will not just be a part of the UK system with some distinctive Scottish features. It seems inevitable that if this model were introduced in WA the results would be similar. Also it seems inevitable that other states would want a similar model applied to them and that, in time, the Australian system would be replaced by a set of state systems with differing funding levels and standards. Such a move does not seem likely to enhance the international standing of the Australian institutions nor to improve the education provided to the students.

137. Thirdly, it is suggested that the funding system should be trinary. It is important to note that during the first few years of the existence of NAB money was allocated to Polytechnics and other institutions on a basis which discriminated in favour of the Polytechnics, ie higher unit costs were granted to students in Polytechnics than in other institutions. But this policy has now been abandoned because it was not felt to be logically defensible to fund the teaching of students studying similar courses on different bases which depended solely on whether they were in a Polytechnic or another type of college. The NAB has now replaced this system by

one which has two components: firstly, institutional funding related to the percentage of advanced further education in the institution (many non university institutions in England have non-advanced further education included in their work ie they are multi-sector institutions) and, secondly, course funding which is uniform to all types of institutions. Indeed it is still NAB's policy to work towards course funding on the same basis throughout higher education in England. This experience suggests that if trinary funding were introduced in Australia it would afterwards be found to cause more problems than it solved.

138. Thus one concludes that this option in any of its variant forms is also not the best way ahead for Australian higher education.

Option III - The Binary System Modified on a Commonwealth Basis

139. In the following sections reference to the Commonwealth is based on a belief that a partnership of the States and Territories and the Commonwealth is essential for the management of a national system which enjoys support from all parties, and that the special position of the Commonwealth requires that it should initiate and have the carriage of the development of changes to the present system in association with the States.

140. The obvious starting point for a consideration of this option is the recent Report of the Review of Efficiency and Effectiveness in Higher Education (12) and especially its Chapter 6: Structure and Organization of Higher Education. It will be already apparent that the author of this paper believes that most of the analysis of this chapter is very good and is in tune with the international movements cited earlier in this paper. Thus the reasons in support of a binary system set out in the first half of the chapter have been quoted with approval in the above discussions of Options I and II.

141. The author also believes that the reasoning set out in paras 6.34-6.48 on regional provision and the establishment of new institutions is acceptable and that he need not comment on it.

142. He feels similarly about credit transfer and student mobility. And he has already commented (see p 137) on the relative lack of emphasis on continuing education and training in the recent material he has read, but as this is an issue for higher education generally it is not especially important for issues about the future of the binary system.

143. But it is in two respects that the author feels the Review has not gone far enough, namely on the issue of the funding of research and on doctoral work in the non-university sector. And a number of additional points are now made on each of these two topics.

144. The relevant section of the Report dealing with the funding of research is paras 6.26-6.31. This recommends three things -

(i) provision for research should not be included in the general recurrent grants for CAEs,
(ii) there should be a programme of matching grants to support applied research activities supported by industry and
(iii) performance on (ii) should be carefully monitored.

145. From what has been set out above it will be clear that NAB practice and STEAC proposals both go beyond this position. But it is more surprising that the Report does not really consider whether any changes in the funding of research in the university sector are necessary. There is only the tantalizing part of one sentence in 6.29 '...the CTEC may wish to consider any further adjustment which seems to be required to its research funding policies, including further concentration of research activity in universities'.

146. Yet there is the view that the present system is 'wasteful', as expressed by the Minister for Education for WA, and the movement to selectivity in the universities in the UK. Indeed the material set out above on this selectivity suggests that it may go a lot further in the future. It is not inconceivable that within a few years the system will have moved to something like the following. All universities will be funded for teaching and scholarship through UGC grants, but only some (perhaps less than 1/3) will be generally funded for research purposes throughout the institution. In other words, the general research funding will receive 'an element for research within the block grants made by the UGC', the other universities 'will lose research funding from the UGC' (cf para 94). Some research monies will be released from that which is at present allocated to these latter universities. This will form a pool of research monies and the latter universities and the most successful of the non university institutions will be able to bid for grants from this to undertake research which meets certain well defined objectives. These objectives would be defined by the Government in association with the UGC, the NAB and other relevant bodies. Decisions on grants in individual cases would be made by Expert Groups. These same institutions would also be eligible to seek grants from Research Councils for particular projects which the institutions wished to undertake. Likewise they could undertake contract research for governmental agencies or for industry and commerce.

147. With such a radical possibility in the UK the current recommendations in the Report on Efficiency and Effectiveness are welcome, as far as they go, but they are unduly cautious. They do not fully respond to the potential in the best of the CAEs nor harness that to the development of the Australian economy. The UK Government has itself found it to be beneficial to be able to encourage certain specific initiatives in both universities and non-universities on the basis that the institutions bid for grants for particular purposes and the allocations are made to those judged to be most likely to be able to undertake the work successfully. It seems probable that Australia could find it valuable to take a similar step on a Commonwealth basis. In the initial stages the monies need not exceed a few million dollars. They could either be 'new' Commonwealth monies or they could be found by reserving a part of the CTEC monies for this purpose (ie 'top slicing' to use the NAB terminology). It would be important that such a step should be on a Commonwealth basis, but that would not prevent a State from commissioning a CAE to undertake research work for it for clearly specified purposes and to supplies monies for those commissions from State monies. Such a step would be supported by international precedents.

148. The implementation of such a step would require the development of a Commonwealth machinery to make the necessary selective judgments. It has been suggested by Barker (16) p 15 that the Committee anticipated difficulties 'in attempting to determine which institutions, and which particular departments within those institutions, might be regarded as worthy of financial support for research'. However NAB has now firmly demonstrated that this can be done, both efficiently and effectively, and without provoking major controversy. In each case a small ad hoc working party of experts has been established at the national level to consider the institutional bids against the previously published criteria. The working party advises NAB and it takes the decisions. As the quality of the advice has been high in all cases, NAB has not found it difficult to take the decisions and likewise they have been accepted even by the disappointed institutions. It is not apparent why the potential problems should be any greater in Australia, provided that the decisions were taken at Commonwealth level, nor that this anticipated difficulty should stand in the way of an otherwise desired development.

149. Thus this small further step should be considered now alongside the Report on Efficiency and Effectiveness.

150. The more radical step of a major concentration of the general funding for research into a few institutions in the way outlined above should also be studied. Clearly a step will provoke much opposition but it is not difficult to develop a very powerful set of arguments in support of such a move.

151. Doctoral work in the CAEs is only dealt with briefly in the Report in paras 6.32 and 6.33. The conclusion is in 6.33(3).

'(a) doctoral programmes may be approved for Commonwealth funding in CAEs where the subject area is not available in a university in the relevant State or region, the staff and facilities to support an award of an appropriate standard are available, and the number of students is sufficient to permit an educationally and financially viable course;

(b) where doctoral programmes are approved in CAEs, the award can be either:

(i) a university PhD, where a university is in a position to accredit the CAE to undertake and supervise the programme; or

(ii) where (i) is not possible, an award of the CAE.'

152. The author of this paper believes this is not a very imaginative recommendation. The non-university sector in the UK has been involved in doctoral work since 1964. This has been especially relevant for research programmes carried out in association between an institution and a full time employee of industry, commerce or one of the professions. In these cases much of the special facilities for the programme have often been provided by the employer and the research supervision has been provided by both the academic institution and a collaborating institution. The CNAA has controlled the approval of the programmes and the supervisors and the examination arrangements. The mutual benefits have been considerable.

153. Many projects which employers wished to be undertaken have been completed and the employees have received CNAA PhDs and these activities have extended the links between the institutions and industry, commerce and the professions.

154. It seems likely that similar factors must apply in Australia and that the needs of these employees could be better met through the CAEs than through the universities. A further consideration of this recommendation is indicated.

Overview

155. Option 3, which is the author's preferred option, argues in support of an orderly development of the system which, while preserving the best of the current values and practices, allows for controlled developments when there are judged to be of value to students, employers and the economy generally.

156. The CAEs should be proud of their record and prowess in teaching and this emphasis on excellence in teaching should be retained. So also should the range of work including especially that at sub-degree level. This should receive as much attention from College managements as the degree programmes. Further steps should be taken to enhance credit transfer from TAFE institutions to CAEs (and to universities). Thus the distinctive characteristics of CAEs should be valued highly and retained. But in selected cases CAEs should be able to add new types of activities.

157. The universities leading role in fundamental research should continue, but there should be a full consideration of the efficiency and effectiveness of the present funding mechanisms. Such an examination might result in a substantial concentration of that part of their research funding which comes from CTEC into fewer institutions: such a move would result in a significant change in the university sector. The monies released by such a concentration could be available to support the development of applied research as outlined above.

158. The universities which lost research funding from CTEC and the CAEs could bid for grants from these monies.

159. As soon as possible CTEC should make some monies available to assist the development of applied research in CAEs. This would not be a general allocation to all CAEs. It would be for previously agreed purposes and colleges would leave to bid for it. Judgments on the bids would be made by expert groups and advice from them given to CTEC on the allocation of the monies. Performance against the agreed purposes would be monitored.

Such a programme would be in addition to the proposed development whereby the CTEC would match monies raised from industry for applied research purposes.

In addition the CAEs should be encouraged to seek monies from research councils, industry, commerce and the States themselves for the development of their research activities.

160. The position on doctoral studies set out in the Efficiency and Effectiveness Report should be re-examined. In particular some CAEs should be encouraged to develop a machinery by which full time employees of industry, commerce or the professions can work for PhDs on projects which are of interest to their employers.

161. Such controlled developments would further extend the overlaps between the universities and the CAEs. This should be seen as a healthy development. Likewise the controlled development in appropriate circumstances of overlaps between CAEs and TAFE institutions should be seen as desirable and beneficial.

162. The logic of such developments implies that in CAEs and Universities the grants from CTEC for teaching purposes for comparable courses should be equalized as soon as possible. The grants from CTEC for research purposes have been discussed above in paras 157ff.

163. The whole of this controlled development should be brought about through an interactive partnership between CTEC and the State bodies. The current development towards the unified machinery at Commonwealth level being method by a machinery in each State/Territory which will produce a single post secondary education statement is potentially of immense value to Australia and should be vigorously pursued.

164. In order that the distinctive features of the sectors are modified in an orderly manner there will need to be some substructures which promote the interest of the institutions in each sector.

165. The above would result in a post secondary education system which preserves all the best of current practice and a controlled development which would enable some of the CAEs and TAFE institutions to take on additional activities where they could perform those in an efficient and effective manner and at a high quality.

166. Sector labels can be an aid to understanding or an obstacle to desirable progress if they imply an unnecessary rigidity. The position outlined above would imply changes in universities, CAEs and TAFE institutions, but with the retention of the current major characteristics. Whether the binary label would then be the most satisfactory one to described the modified post secondary education system is open to debate. But it should be retained at least until the debates have been held and the major decisions taken on the direction of the developments.

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ATTACHMENT 1

From: A Strategy for Higher Education in the Late 1980's and Beyond
CHAPTER 2 HIGHER EDUCATION AND THE NEEDS OF SOCIETY

(A joint statement by the National Advisory Body and by the University Grants Committee in which 'we' refers to both bodies

2.1 More than twenty years ago the Robbins Committee identified four objectives essential to the higher education system. These it described as: instruction in skills; promotion of the general powers of the mind; the advancement of learning; and the transmission of a common culture and common standards of citizenship. The meaning given to some of these terms and the context in which they might apply have changed since the time of the robbins report. Nevertheless, we believe they form an appropriate basis for considering the present and future role of higher education in our society.

2.2 Providing instruction in skills and promoting the powers of the mind remain the main teaching purposes of higher education. In carrying out this role higher education attempts to meet both the needs of the economy for highly skilled manpower and the aspirations of individuals for an educational experience which will provide for personal development and lead to a fulfilling and rewarding career. The faster pace of scientific, technological and economic change which our society now experiences has implications for the types of skill which higher education attempts to inculcate.

2.3 Specific knowledge quickly becomes outdated and the context in which it is applied rapidly changes. Initial higher education, particularly at diploma and first degree level, should therefore emphasize underlying intellectual, scientific and technological principles rather than provide too narrow a specialist knowledge. The abilities most valued in industrial, commercial and professional life as well as in public and social administration are the transferable intellectual and personal skills. These include the ability to analyse complex issues, to identify the core of a problem and the means of solving it, to synthesize and integrate disparate elements, to clarify values, to make effective use of numerical and other information, to work co-operatively and constructively with others, and, above all perhaps, to communicate clearly both orally and in writing. A higher education system which provides its students with these skills is serving society well.

2.4 The world has changed since Robbins reported. The focus of initial higher education must now be broader and the recent increased emphasis on continuing education must be maintained and accelerated. Many commentators have written about a new industrial revolution, based on information technology, biotechnology and other scientific advances. The need for updating, refreshment, and re-orientation and for the development of new skills and attitudes is more pervasive, and in a sense more mundane. It affects for example the professions seeking to cope not only with technological advance, but also with changes in their legislative and regulatory framework; management and trade unions seeking to understand and adapt to their changing social and economic environment; those in the public services absorbing new ideas on the orientation and organization of their work; and the unemployed seeking to re-enter the labour market in new fields of employment.

2.5 Continuing education needs to be fostered not only for its essential role in promoting economic prosperity but also for its contribution to personal development and social progress. It can renew personal confidence, regenerate the human spirit and restore a sense of purpose to people's lives through the cultivation of new interests. In short, both effective economic performance and harmonious social relationships depend on our ability to deal successfully with the changes and uncertainties which are now ever present in our personal and working lives. That is the primary role which we see for continuing education.

2.6 We have considered whether this increased emphasis on continuing education should be seen as a re-interpretation of Robbins first two objectives or as a new objective. In view of the importance we attach to continuing education we see merit in emphasizing the establishment of a new objective rather than simply re-interpreting those enumerated over twenty years ago. This we would define as:-

> the provision of continuing education in order to facilitate adjustment to technological, economic and social change and to meet individual needs for personal development.

2.7 In concentrating on the teaching functions of higher education the Robbins Committee's first two objectives answer in part the question 'What is higher education for?' The approach of the Robbins Committee to this question is enshrined in the famous axiom that courses of higher education should be available for all those who are qualified by ability and attainment to pursue them and who wish to do so. This has been the guiding principle of higher education planning for the past two decades.

2.8 We reaffirm the importance of access and the provision of opportunity. However, the Robbins axiom should be interpreted as broadly as possible, particularly in relation to the term 'qualified'. Essentially a student's qualification is used to form a judgment on his or her ability to benefit from a course. Yet evidence shows that school examinations such as 'A' levels are not always good predictors of achievement in higher education and that other qualities and experience can be important determinants of success. We believe that the Robbins axiom is more appropriately restated as 'courses of higher education should be available for all those who are able to benefit from them and who wish to do so'.

2.9 The third objective of the Robbins Committee refers to the advancement of learning. The extension and application of knowledge are at the heart of the educational process: indeed, that process is itself most vital when it partakes of the nature of discovery. Moreover, through its research activity, higher education makes a major contribution to the continued health of the nation's industry and commerce. To curtail research would in the long run impoverish the nation materially as well as culturally.

2.10 The language of Robbins' final objective - 'the transmission of a common culture and common standards of citizenship' - may seem somewhat dated nowadays when so much emphasis is placed on the contribution which diverse cultures can make to the vitality and strength of our society. Yet it is still true that there are common values which education seeks to transmit and which help to give society its cohesion and stability. These include the need to

protect the free expression and the testing of ideas, and the examination of cases and arguments on their merits. In this sense the objective is even more relevant in today's multi-cultural society than it was twenty years ago. The Robbins Committee's own elaboration of the objective indicates that the sentiments which underlie it still apply today. 'This function, important at all times, is perhaps especially important in an age that has set for itself the ideal of equality of opportunity. It is not merely by providing places for students of all classes that this ideal will be achieved, but also by providing, in the atmosphere of the institutions in which the students live and work, influences that in some measure compensate for any inequalities of home background. These influences are not limited to the student population. Universities and colleges have an important role to play in the general cultural life of the communities in which they are situated'.

2.11 The principle of access, which we have re-affirmed and re-formulated above, is concerned with providing places for students from different backgrounds and attempting to compensate for previous inequalities. We would broaden it and include students not only from different social classes, but also from different ethnic groups. Moreover, opportunities for women must be as good as opportunities for men. The principle is also concerned with the relationship between each institution and its locality. It is as important as ever that institutions should contribute to the cultural life of their communities. In the world of the 1980s, it is equally important to contribute to the economic, industrial and commercial life of the locality.

2.12 A longer-term strategy must build on the strengths of the two sectors of higher education and must maintain the present diversity of provision. Full-time first degree courses will continue to be a major activity of both universities and major public sector institutions. Although most subjects of study are available in both sectors, we do not consider that there is any general problem of duplication in view of the spread of institutions and of differences in the structure of courses and in the students attracted to them. Areas of excessive or inadequate provision will need to be considered by both sides of higher education together; so far as England is concerned, we intend to do it jointly. We would expect the universities to continue to be responsible for the bulk of postgraduate provision, particularly full-time courses and postgraduate work designed to prepare students for careers in research. The public sector should continue to provide the bulk of non-degree courses and of part-time courses. But where there is clear evidence of demand, institutions in either sector should not be prevented from introducing courses which arise from and are connected to their existing offerings.

2.13 For the public sector, continuing education has always been as important as the education of school leavers. Universities have varied very much in their involvement. The expansion of continuing education which we believe to be necessary will offer a challenge to both sectors and should be based on their different experience and strengths. It must take account of the contribution of the Open University.

2.14 The general leadership of the universities in research work is recognized and reflected in the funding arrangements for the two sectors, but we agree that there is a legitimate research role for major public sector institutions, both to support and sustain teaching and as a contribution to the advancement and application of knowledge.

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W(H)ITHER BINARY? SEMINAR

ATTACHMENT 3: SEMINAR PARTICIPANTS

Mr Ken Beatty
Regional Director (WA)
Commonwealth Department of Education

Professor David Beswick
Director, Centre for the Study of Higher Education
University of Melbourne

Professor Peter Boyce
Vice-Chancellor
Murdoch University

Mr Roderic Broadhurst
Co-ordinator of Needs Assessment
Health Department of WA

Ms Liz Campbell
Student Guild
Curtin University of Technology

Mr Bob Cleary
Secretary
Tasmanian Council of Advanced Education

Mr Roger Cook
WA Post Secondary Students Organisation

Mr Simon Cooper
Projects Officer
The Chamber of Mines of Western Australia (Inc)

Mr Peter Correy
Deputy Chairman
New South Wales Higher Education Board

Mr Martin Cove
Executive Director, Education Programmes
Tasmanian Department of Education

Mr Bill Dickinson
Principal
Scotch College

Mr Bruce W E Dormer
General Manager (WA)
Fluor Australia Pty Ltd

Mr Dan Dunn
Secretary
Murdoch University

Dr Fred Ebbeck
Director
South Australian Office of Tertiary Education

Mr Peter Forrest
Director (Technical and Further Education)
Education Department of WA

Dr Leo Foster
Director
Phillip Institute of Technology

Ms Janine Freeman
Vice-President
WA Post Secondary Students Association

Dr Tony Gallagher
Planning Assistant, Vice-Chancellor's Office
Curtin University of Technology

Mr Keith Gammie
Manager (Central Engineering)
Woodside Offshore Petroleum Pty Ltd

Dr Dennis Gibson
Director
Queensland Institute of Technology

Mr Graham Gifford
Past President, Guild of Students
Murdoch University

Dr Jim Gill
Director (Corporate Services)
Westrail

Ms Sue Grahame
Executive Officer
Australian Council on Tertiary Awards

Mr Bob W Greig
Secretary, Education and Training Committee
The Confederation of Western Australian Industry (Inc.)

Mr Bill Hamilton
Member of the Board
Queensland Board of Advanced Education

Mr Neil Harpley
President
Federation of Australian University Staff Associations

Mr Dale Harvey
Executive Officer
Graduate Careers Council of Australia Ltd

Professor John Hattie
Professor of Education
The University of Western Australia

Mr Geoff Hawke
Principal
Mt Lawley Technical College

Dr Linton Hayes
Executive Director
Australian Institute of Management (WA)

Hon Bob Hetherington MLC
Member for South East
Metropolitan Province

Mr Paul Hickey
First Assistant Secretary
Commonwealth Department of Education

Mr Brenton Holmes
Executive Assistant
Office of the SA Minister of Employment and Further Education

Dr Wally Howse
Secretary
WA Post Secondary Education Commission

Dr Steve Hunter
Dean, Academic Affairs
WA College of Advanced Education

Mrs Audrey Jackson
Principal
St Mary's Anglican Girls' School

Dr Douglas Jecks
Director
WA College of Advanced Education

Professor Dick Johnson
Special Commissioner
Commonwealth Tertiary Education Commission

Mrs June Jones
Principal
St Hilda's Anglican School for Girls

Mr Phil Judd
President
WA Post Secondary Students Organisation

Mr Steven Kates
Senior Research Officer
Confederation of Australian Industry

Dr Edwin Kerr
Former Chief Officer
Council for National Academic Awards (UK)

Dr Adrianne Kinnear
Senior Lecturer (Science)
WA College of Advanced Education

Dr David Koch
Chief, Division of Minerals and Geochemistry
Commonwealth Scientific and Industrial Research Organisation

Mr Andrew Laird
Education Officer, Student Guild
WA College of Advanced Education

Mr Bill Latter
Senate Member
The University of Western Australia

Dr Brian Lawrence
Head, Academic Planning
WA College of Advanced Education

Mr David Lewis
Executive Director, Policy and Resources
Education Department of WA

Ms Susan Lewis
Senior Policy Officer
Department of Premier and Cabinet (WA)

Dr Mark Liveris
Deputy Vice-Chancellor (Division of Health Sciences)
Curtin University of Technology

Dr Warren Louden
Director-General of Education
Education Department of WA

Mr Scott MacWilliam
Trades and Labour Council WA

Mr Ross Mackee
Executive Officer
Queensland Board of Advanced Education

Ms Sue-Anne Macknay
Manager, Education Services
Western Australian Exim Corporation

Mr Malcolm Macpherson
Chief Executive
Westralian Sands Ltd

Mr Grahame McCulloch
General Secretary
Federated Council of Academics

Mr Nick Mersiades
Assistant Secretary, Education Branch
Department of Finance

Dr Jeff O Miller
Principal
Cumberland College of Health Sciences

Mr John Moody
Principal
Guilford Grammar School

Hon Norman Moore
Shadow Minister for Education (WA)
Parliamentary Liberal Party

Dr David Mossenson
Chairman
Secondary Education Authority (WA)

Dr Paul J Moy
Economist
The Confederation of Western Australian Industry (Inc)

Mr Barry Nazer
Manager, Personnel Development and Training
R&I Bank

Dr Wal Neal
Former Chairman
WA Post Secondary Education Commission

Mr Des O'Sullivan
Assistant Director (School Resources & Management)
Catholic Education Commission of Western Australia

Hon Bob Pearce
Minister for Education and Planning (WA)

Ms Karen Pond
Consultant
Public Service Board (WA)

Dr Bill Pullman
Chairman
WA Post Secondary Education Commission

Ms Julie Quinlivan
President, Guild of Undergraduates
The University of Western Australia

Mr Lyndon G Rowe
Director, Business and Finance
The Confederation of Western Australian Industry (Inc.)

Ms Maxinne Sclanders
President (WA Branch)
Australian Institute of Tertiary Education Administrators

Mr Ben Scott
Commissioner
WA Post Secondary Education Commission

Mr John R Scutt
Secretary
Australian Committee of Directors and Principals

Dr John Sharpham
Deputy Vice-Chancellor (Division of Academic Affairs)
Curtin University of Technology

Mr Peter Sim
Senate Member
Murdoch University

Mr Jeremy Simpson
President, Student Guild
WA College of Advanced Education

Mr Chris Skinner
Co-ordinator of Management Development
Health Department of WA

Dr Don Smart
Senior Lecturer in Education
Murdoch University

Professor Robert Smith
Vice-Chancellor
The University of Western Australia

Ms Jan Stuart
Acting Principal Policy Officer
Department of The Premier and Cabinet (WA)

Dr Peter Tannock
Chief Executive Officer
Catholic Education Commission of Western Australia

Mr Mike Tarca
Executive Support Engineer
Water Authority of Western Australia

Mr Kevin Taylor
Assistant Director (WA Regional Office)
Commonwealth Department of Education

Mr Matti Urvet
Deputy Secretary
Northern Territory Department of Education

Dr Robert Vickery
Director
WA Academy of Performing Arts

Professor Bill Walker
Chief Executive and Principal
The Australian Administrative Staff College

Dr Donald W Watts
Vice-Chancellor
Curtin University of Technology

Dr Janis White
Medical Officer (Planning and Research)
Health Department of WA

Dr Gary Wickham
Executive Member
Federation of Australian University Staff Associations

Mr Ron Williams
Project Officer
Department of Industry, Technology and Commerce (WA State Office)

Dr Haydn Williams
Former Director
WA Institute of Technology

Dr John de Laeter
Deputy Vice-Chancellor (Division of Engineering and Science)
Curtin University of Technology

Mr Tony de V Hill
Principal
Christ Church Grammar School

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W(H)ITHER BINARY?

A Seminar on the Organization of Higher Education for the 21st Century

EXECUTIVE SUMMARY

Where is Australian education headed? There are few more vital questions facing us. This is particularly so for higher education, on which vital aspects of national economic recovery will be based. This seminar discussed the future structure of our higher education system and reached a number of conclusions that will be of great value to governments, the business community and those involved in education in framing a new system.

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Post Secondary Education
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The Higher Education System

Major developments in the higher education system since the mid 1960's have included:

- a three-fold increase in higher education enrolments
- maintenance of education standards
- acceptance of graduates in the work-place
- system response to major structural changes, including in recent years, the amalgamation of institutions and severe financial restraint.

The major components of this system are:

- universities which are funded by means of a block grant for teaching and research
- colleges of advanced education which are funded for teaching only.

The legislation and associated administrative procedures which incorporate these distinctions provide the basis for what is known as the **binary system**.

The Issue

There is now increasing debate as to whether this binary system is the most appropriate one for the 1990's and the 21st century.

- strong arguments have been put for increased government education funding for research in the advanced education sector
- others have argued for retention of the present research funding arrangements
- privately funded higher education institutions are being established, although Commonwealth policy does not support these developments
- State Governments have felt it necessary to take unilateral action to change the system without the support of Commonwealth authorities.

Proposed solutions have included:

- a free-market approach (ie deregulation) through the establishment of a unitary system with a minimum of Government controls and greater autonomy for institutions
- retention of the present binary structure with provision for incremental change, for example, expansion of Government research funding for the colleges of advanced education.

The delicate balance of Australia's economy and the tight financial situation have served to highlight the debate in terms of Australia's requirements for renewed economic growth and equity issues related to education access.

Seminar

In order to prevent these vital issues from becoming simply a matter of State-Commonwealth disputation, and ad hoc responses to the issues the Western Australian Post Secondary Education Commission sponsored a two-day seminar which was held in Perth in March 1987. Ninety key persons from Government, industry and commerce, the community and education institutions met to consider the issues with the assistance of an international authority, Dr Edwin Kerr from the United Kingdom.

The Agenda for Change

The degree of unanimity shown by participants was impressive and provided an agenda for the next stage of discussions and decision making in terms of the following principles:

Planning

- clear statements of government objectives and funding policies
- defined roles and functions for institutions
- greater inter-institutional cooperation
- political and financial realism
- closer links between economic policy development and education policy.

Flexibility

- diversity of educational opportunity
- competition between institutions in relation to course development and research, as well as matching courses to economic and community needs.

Proposals for a New Higher Education System

A flexible and dynamic system capable of serving Australia's needs into the next century would be one with a variety of institution types, including existing and hybrid forms, each funded according to an agreed mission. The rigidity of the binary arrangement would go and the new arrangement would have the following characteristics:

- revised roles for CAEs, universities and TAFE institutions within a post secondary education system
- the separation of funding for teaching and scholarship from block grants for research
- research grants made available to selected universities and CAEs for specified research and development purposes, each institution being free to bid for grants from this pool
- a continuation of the current range of courses, especially at sub-degree level though CAEs and selected universities, with CAEs being permitted to provide doctoral work where appropriate.
- the funding of teaching and scholarship activities in CAEs and universities at identical levels in comparable fields of study
- the urgent and immediate enhancement of credit transfer arrangements and continuing education provision.

The new system would need to provide for a differentiation of institutions through a system of approved mission statements, development of areas of strength and for greater selectivity and accountability in funding arrangements.

Action

The important next stage is to establish under the aegis of State and Commonwealth Ministers for Education, a partnership of State, Commonwealth and institutional interests to work through an agenda for change.

Specific proposals are required for the introduction of a new post secondary education system, which is more flexible than the present binary system and appropriate to the needs of Australia for the next twenty years.

As a first step this matter is listed for discussion at the June 1987 meeting of Ministers forming the Australian Education Council.

Informed debate should also be taken up by all those concerned about education and the role it must perform in contributing to Australia's future.

Seminar Papers

- The Organisation of Higher Education for the 21st Century: Needs to be Met: An Employer's Perspective.
  David Nolan, Director, Confederation of Australian Industry
- The Binary System: A Student Perspective.
  Ms Janine Freeman, Vice-President, WA Post Secondary Students' Organization
- Incubators of Anxiety? Staff Needs in Universities and Colleges
  Professor Bill Walker, Principal and Chief Executive Officer, Administrative Staff College
- The Binary System: A Commonwealth View
  Professor Richard Johnson, Special Commissioner, Commonwealth Tertiary Education Commission
- The Control of Higher Education — By Whom and For What Purpose?
  Dr Donald W Watts, Vice-Chancellor, Curtin University of Technology
- The Binary System and Alternative Models: Two North American Models
  Professor Bob H T Smith, Vice-Chancellor, The University of Western Australia
- **KEYNOTE ADDRESS:**
  The Organization of Higher Education in Australia: Options for the Future
  Dr Edwin Kerr, former Chief Officer of the Council for National Academic Awards in the United Kingdom

Seminar Report

Copies of the Seminar Report are available, at a cost of $20.00, from the Western Australian Post Secondary Education Commission, PO Box 135, Nedlands WA 6009, tel (09) 389 0200.